THE BUILDER

INCORPORATING

"ARCHITECTURE" AND "THE BRITISH ARCHITECT"

VOL. CLXXIII NOVEMBER 14, 1947 No. 5465

WANTED: ENTERPRISE IN BUILDING

THE present is a critical time for building. The grave warning given by Sir Stafford Cripps that the building programme must share in the cut in capital expenditure, to the extent of £200 millions, brings home the fact that the industry, through its dependency on imported materials from outside the sterling area, is subject to a far greater extent than pre-war to the vagaries of international politics. No longer, it would appear, can the building of homes be regarded as a matter of internal policy ; the flow of building output is to be controlled by the tap of world affairs.

We must reconcile ourselves, it seems, to a shrinking building programme, even though it may be twelve months before the full effect of the cuts makes itself felt on the constructional side of the industry. Architects and quantity surveyors must accept a situation where such building design as is done will take place in departmental and local authority offices ; materials and equipment manufacturers must discharge staff and slacken their efforts to re-tool their works; and builders, instead of seeking new contracts, must devise schemes of incentives for their men when the principal incentive—the prospect of full and continued employment—is missing.

We ask the blunt question: Is the proposed building cut either wise or necessary? The paramount need in this situation is to set every hand to work towards our common salvation. It is the view of the Government that only by concentration on the export markets can Great Britain weather the storm. With that we must all agree. It is with the means adopted to further this end that we disagree. It is the Government's fondest delusion that our people will work for an abstract ideal; we believe that we are yet far from that desirable state. The people will work for their dependants and their friends, much as they fought for them. "During the war I came to realise that men feel they owe a duty not only to some abstract cause or ideal, but also to the friends that are around them. Without a doubt a few soldiers fought for an ideal but the majority fought for more personal reasons . . . We must remember this fact in peace time. It is entirely admirable that loyalties should be local and I suggest we must do all we can to encourage them. We must seek to build up a sense of belonging to the neighbourhood." The speaker is Field-Marshal Lord Montgomery and his words have a direct bearing on the present situation. The best incentive to offer the average factory or agricultural worker is a decent home for his family, and the worst is an increased wage packet that can buy nothing he values. In our view the provision of good homes is perhaps the surest way of arresting the alarming pace of our national descent of the spiral caused by high wages and low production.

It will be argued that the country cannot afford the materials and money to increase or even to maintain the present output of houses, lamentably low as it is. We agree, for so long as enterprise is discouraged. In their attempt to prevent the victimisation of the lower-paid workers through high housing costs, the Government is effectively preventing the speedy re-housing of all sections of the community, and we see the spectacle of families that could well afford to rent or buy their own houses on an economic basis competing for municipally subsidised houses. Probably the greatest shortages are in coal, which affects all materials, and in timber. The position in regard to the latter, if we are to go by the official veiled statements, is less serious than we had been led to believe. As to coal, tangible incentive would go far to improve the position.

If there is truth in the economic maxim that the State is built on the family and the home, then that should be the starting point in national rehabilitation and in production. If local authorities as the managers of housing schemes cannot produce houses in under 12 to 14 months, then the Government should increase the number of licences to private builders and let them make their contribution within the framework of the current limit of selling price. In this work the building societies are ready to play their part, and as additional workers apply their wages, in many cases at present high, to the repayments which make the houses their own, so will one part of the Chancellor of the Exchequer's concern for inflation disappear. A well-housed nation is in a position to give of its best in production; men who are living with their families in one or two rooms of other people's houses are not, and the Government should realise this and make re-housing the spearhead of the production drive. The present policy not only will leave the nation poorly housed but will lose to other industries the present artificially-created surplus of building operatives who may well decide to stay in the new industries into which the Government now seeks to direct them.

It is, indeed, a critical time for building, and it is with the more pleasure that we welcome that hardy biennial of initiative, the Building Exhibition, which, after a nine years' interval, opens its doors at Olympia next Wednesday. In the number of exhibits it is nearly up to prewar best (411 to 444 in 1938) but in area covered and in interest of exhibits on display it promises to be the most stimulating yet. There have been many new developments during the war, particularly in materials alternative to the traditional ones, in plastics and plywoods, in concrete processes, in earth-moving machinery, in kitchen equipment, in roofing materials and in hand-power tools. Particular attention will undoubtedly be paid to the D.S.I.R. Exhibit, in which the Ministries of Health and Works have joined, and also to the educational exhibits sent by the building schools. Science has been allied to the building process in a remarkable degree and the Exhibition will assuredly stimulate the ingenuity and raise the interest of every section of the industry at home and abroad.

Perhaps most of all the Building Exhibition is welcomed as a meeting place of old friends, and our thanks are due on behalf of the industry to the Montgomerys for their initiative in getting the Exhibition once more under way, and to the exhibitors, many of whom have faced very great difficulties in mounting their displays. This Olympian show will infuse a new spirit of enterprise into our industry.

NOTES AND NEWS

R.I.B.A. Inaugural Address.

THE Henry Florence Hall was well filled on Tuesday night to hear the President's second inaugural address and to congratulate Messrs. Farquharson and McMorran on winning the London Architecture Medal for their Blackheath Police Section House. After his fine effort last year much was expected of Sir Lancelot Keay, and he did not disappoint, as reference to the text of his address elsewhere in this issue will prove. He announced himself as quite unrepentant in his belief expressed last year that the traditionalists are worth study even in these functional days, and left us with a fresh trio of watchwords—simplicity, sincerity and surprise. In between was a fund of stimulating thought, expressed with that felicitous turn of phrase of which the President is a master. The votes of thanks were proposed by Lord Esher, in iconoclastic mood, and Mr. Henry Willink, M.P.

The fine collaboration between the client, in the form of Scotland Yard, and the architects, which evidently existed on this latest subject of the Medal award, was well shown by Mr. Farquharson, who gave the credit for the building to his partner, Mr. McMorran, and by Mr. McMorran, who passed it on to Mr. Bush, the Police Architect, and to his old master, Mr. Vincent Harris. A handsome tribute to the builders, Messrs. Galbraith Bros., and the foreman, Mr. Young, rounded off an enjoyable evening. But please may we go back to the later time of meeting of other days? It is hard to capture that proper sense of expectancy due to a great occasion between tea and dinner.

City Seeks Purchasing Powers.

THE Corporation of the City of London is applying to the Minister of Town and Country Planning for powers to purchase 272 acres in the City. This represents 41 per cent. of the City acreage, with a rateable value in its present devastated state of £563,768.

We learn that if the Minister grants these compulsory purchase powers it does not necessarily follow that the Corporation will use them, for in April, 1945, it was resolved by the Common Council that the extent to which compulsion would be used would be determined by the degree to which private owners and private developers were able and willing to co-operate with the Corporation to secure the best development.

The areas included in the proposals are as follow :—Holborn-circus to Ludgate-circus ; Barbican — St. Paul's — Upper Thames-street ; Cheapside—Cannon-street ; Leadenhall - street — Gt. Tower - street ; Camomile-street ; and Houndsditch—Minories.

Fiesta in Kensington.

THE annual Chelsea Arts Ball is this year to have as its set piece the subject "Baroque," and no more fitting theme could have been chosen as an antidote to these austere times than that extraordinary expression of Renaissance exuberance, or, as some people think, artistic decay. This singularly un-English ball is quite the best thing of its kind, and the art schools with their parading show vehicles (this year's theme should come out well with the architectural schools) give a truly Continental feeling to that erstwhile pleasure dome in Kensington Gore. The attempts of the more Philistinic elements of the party to break up the models are always worth watching; these attempts have in past years become so successful that a posse of rugger boys are brought in to stop the rot. The whole thing is very hilarious, rather naïve, and not in the least sophisticated. Picasso was apparently approached on the subject of his doing the giant backcloth, "Baroque," but he refused on the grounds of having too much other work to get through. It would certainly have been amusing to have seen his interpretation of the theme.

A Threat to Dovedale.

THE War Office has asked the Ministry of Town and Country Planning to advise on the reception which might be expected for a proposal to establish a small-arms range in Dovedale. For many years the Territorials have rented a rifle range on the hills just north of the Peveril of the Peak Hotel at Thorpe. The authorities now seek to buy these 120 acres and with them a further 450 acres stretching northwards along either side of the Dale. The regional office of the Ministry has approached local interests, and already the strongest opposition has been expressed.

Death Watch Beetle at Wrotham Church.

The church of St. George, at Wrotham, Kent, dates back to the 13th century, being the second one to be built on this site, the previous one dating from A.D. 964. It is considered probable that it is one of the first churches to be dedicated to St. George, as it was not until many years later that St. George became patron saint of England and so became popular for dedication of churches. Though the building was in the line of hostile bombers and flying bombs in their attacks on London, Wrotham church was only slightly damaged by a near-by bomb. This smashed some windows and caused a fall of plaster in the north aisle. When this damage was being repaired it was found that the rafters in the north aisle were

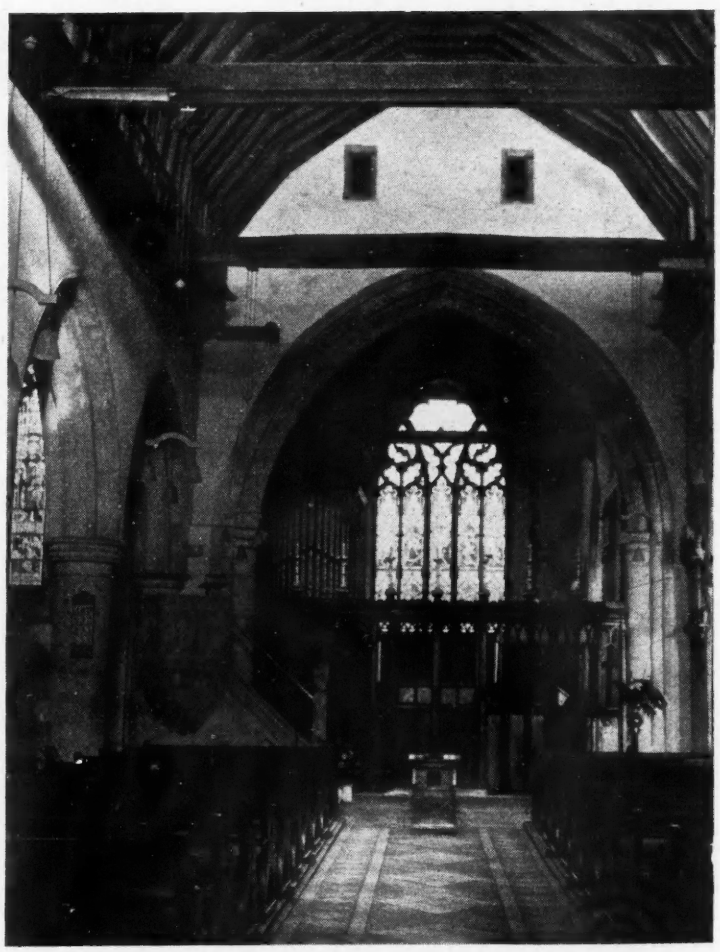
PRINCIPAL CONTENTS

ARTICLES Page

EDITORIAL : Wanted : Enterprise in Building 533
R.I.B.A. : Presidential Address ... 536
LOOKING DOWN THE YEARS AT THE BUILDING EXHIBITION 538
COST-OF-BUILDING INDEX. By S. Plaister, F.R.I.C.S.... ... 540
CUTS IN BUILDING : A.B.T. Statement 542
CORRESPONDENCE 550
ROUND THE STANDS AT THE BUILDING EXHIBITION ... 552
HOUSING PROGRESS REPORT ... 559
LAW REPORTS 560
ELECTRICITY ON HOUSING SITES. By F. G. Marshall ... 562
CONTROL OF IRON AND STEEL 563
FUTURE CONSTRUCTION ... 564

ILLUSTRATIONS

LONDON ARCHITECTURE MEDAL AWARD 541
HOUSES, BROMLEY, KENT. By Co-operative Planning, Ltd. ... 543
CANTEEN FOR BOOTS, BEESTON. By Henry Tanner 544



ST. GEORGE'S, WROTHAM, whose rafters in the North Aisle have been attacked by the death watch beetle (see Note).

being attacked by the death watch beetle. Now the whole of the plaster ceiling of the north aisle is to be removed, and probably some of the beams will have to be replaced. The cost will be at least £2,000, and, as it is outside war damage claims, will have to be borne by the parish. A restoration fund has been started by the parishioners.

A photograph, reproduced on facing page, shows the nave of the church, looking towards the high altar, showing the 14th-century chancel screen which has the unusual feature of having seven candlesticks on the top of it. The plaster has been removed from the roof of the nave, owing to the discovery of the ravages of the death watch beetle about 20 years ago. Repairs made then to the ends of the tie beams can be clearly seen in the picture.

"Planning Developments Abroad."

THE Town and Country Planning Association has started a new series of evening meetings at the Planning Centre, 28, King-street, W.C.2, under the general title of "Planning Developments Abroad." The series opened on November 12, and lectures will be delivered weekly on Wednesdays for at least twelve weeks. It is hoped that this series will prove of particular interest to all architectural and planning students, as well as to established planners, engineers, architects and sociologists. In every case the speakers are authorities on their chosen countries, and in nearly every case have only recently returned from a review of developments during the war and post-war periods. Thus the lectures should prove of unique value as a means of assessing comparative progress in the various countries. The lectures last about 45 minutes, and time is given for questions and discussion. The Association hopes that local authorities in the Greater London area will give every facility to members of their planning staffs to attend the meetings. The fee for the course is 17s. 6d. (special rate for students, 10s. 6d.); individual lectures, 2s. (special rate for students, 1s. 6d.).

Editorial Appointment.

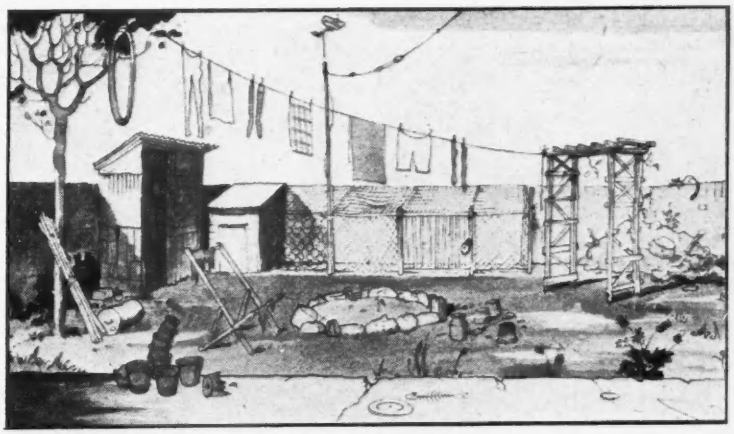
THE Town and Country Planning Association announce that Mr. Desmond Donnelly has taken over the editorship of "Town and Country Planning," left vacant by the resignation of Mrs. Elizabeth McAllister, M.A. Before joining the R.A.F. in 1940, Mr. Donnelly founded and organised the British Empire Cricket Eleven, which, during the war, raised more than £25,000 for the British Red Cross.

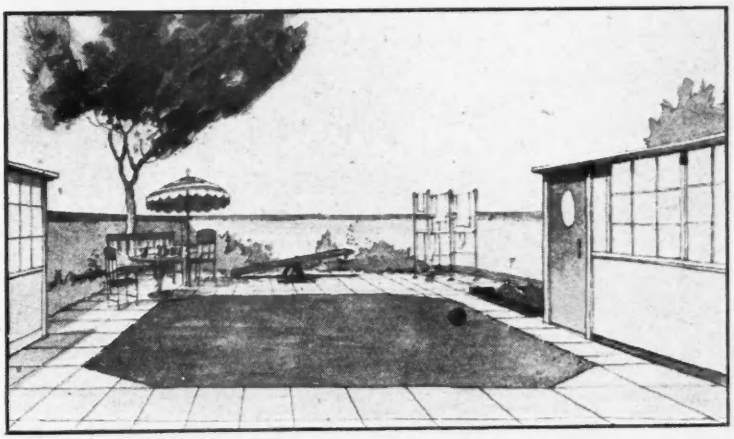
Mrs. Elizabeth McAllister has edited "Town and Country Planning" for six years. Her two small sons, her M.P. husband, not to mention such other commitments as her membership of the Stevenage New Town Development Corporation, have all made it inevitable for her to economise on time.

Quantity Surveyors in South Africa.

FROM the Chapter of South African Quantity Surveyors comes word that building surveyors who are not qualified as quantity surveyors are arriving in that country and designating themselves as quantity surveyors. Such practice is contrary to South African law, for it is a contravention of the Union's Architects' and Quantity Surveyors' Private Act No. 18 of 1927, and the Regulations under the Act, for such persons to call themselves quantity surveyors unless they are qualified in terms of the Act.

The Board of the Chapter feel that this is done in ignorance by the offenders and naturally we feel that this must indeed be the case, since no such law applies to quantity surveyors in Great Britain. It would seem that here is an instance where South Africa is well ahead of the Mother Country in the matter of professional legislation.





"SLUM CONDITIONS" DISPLAY AT THE BUILDING EXHIBITION. Above is shown a slum backyard of the 1910 era. Below is a small garden, as visualised by the L.C.C., in 1950. The drawings are by Mr. Lawrence Wright. The first review of the Exhibition (which opens on Wednesday next at Olympia) commences on page 552.

Burns Memorial Theatre.

PLANS for a national theatre for Scotland were discussed at a meeting in Ayr on November 8 between representatives of the Burns Federation and the Butlin holiday camp organisation. The representatives of the federation provisionally accepted Mr. W. E. Butlin's gift of £10,000 towards the project and a site for the theatre, which will be a memorial to Burns. The site provisionally selected overlooks Ayr Bay, a few miles from the poet's birthplace, Alloway. The formation of a Burns memorial trust was proposed to launch an appeal for £100,000, the sum needed to carry out the scheme.

Mayoral Elections.

MAYORS elected on Monday by the cities and boroughs of England and Wales included Councillor Oswald P. Milne, F.R.I.B.A. (Hampstead), and Councillor Hal Gutteridge, M.I.Mech.E. (Westminster).

Recent Appointment.

MR. F. BEAUMONT, M.B.E., B.Sc., A.M.I.C.E., M.I.Mun.E., Deputy Borough Engineer, Battersea, has been appointed Deputy City Engineer and Surveyor to the Oxford City Council.

City of Leeds Works Department.

THE headquarters of the City of Leeds Works Department have now been established at Sweet-street, Leeds 11, and all communications should be forwarded to the Director of Works, Mr. H. R. Hudson, L.R.I.B.A., at that address.

Open-Cast Mining at Bretton Park.

THE Ministry of Fuel and Power is to requisition several acres of Lord Allendale's estate, Bretton Park, near Wakefield, for open-cast mining. It is understood that the mining is to be within a few hundred yards of Bretton Hall, but it is not yet known whether this latest development will affect a proposal by the West Riding education authority to purchase the hall for use as a music and arts training college, for women teachers.

Professional Announcement.

MESSRS. FISK, BURLEY AND FISK, chartered architects, have removed to 24, Buckingham-street, Strand, W.C.2 (tele.: Temple Bar 5695), where they will be pleased to receive trade catalogues.

From *The Builder* of 1847

Saturday, November 13, 1847

THE election of Mr. Sydney Smirke as an associate of the Royal Academy last week, is a second acknowledgment that the Academy have virtually rescinded the narrow rule which required the candidates for its honours to be members of no other society of the kind, Mr. Smirke being a fellow of the Institute of Architects.

R.I.B.A. PRESIDENTIAL ADDRESS

ARCHITECTURE AND THE ECONOMIC CRISIS

PRESIDENT'S PLEA FOR SIMPLICITY, SINCERITY AND SURPRISE

THE possible effects of the conditions imposed to-day upon architecture and those who seek to learn it, were considered by SIR LANCELOT KEAY, K.B.E., P.R.I.B.A., when he gave the inaugural address at the Royal Institute of British Architects on November 11.

The President began by saying: "A year ago I ended my first address with a plea for co-operation, for mindfulness of tradition, and for dignity. Perhaps the vibrations which those final words set up a year ago, much weakened in the length of time, did faintly echo two weeks ago in a building in a neighbouring square. There the distinguished president of that slightly younger and once more rebellious sister body which has its headquarters in an older and more traditional building than our own, sent out a plea for 'harmony, order and quality'—a plea so hardly differing from my own that co-operation between this Institute and the Association would seem well guaranteed at least throughout the coming year."

Sir Lancelot then went on to discuss the effect of present-day conditions on architecture, and we take the following extracts from his subsequent remarks:—

The effect of the economic crisis upon the country as a whole, serious though it may be, is not a matter I can properly refer to this evening, but its probable effect upon our profession is a matter which must be viewed with such concern that I should be lacking in my duty if I did not make some reference to it. If we preserve dignity we shall avoid panic. Panic only adds to difficulty in times of stress. Members of this Institute, in common with all loyal subjects, willingly made their sacrifice when the safety of the country was at stake. They will not flinch when our very existence as a great nation is imperilled. The postponement of capital works appears to be inevitable, but artist and craftsman must be kept in being to practise their art when conditions permit. The development and redevelopment of towns may have to be delayed, but the forward preparation of the necessary plans can and should be proceeded with. Some of this work will be done by officials, more will be undertaken by architects in private practice. Local authorities should find no difficulty in planning ahead and thus ensure they may be ready to discharge their responsibilities when they fall to them. Private bodies and persons may be more reluctant to incur the expense of forward planning which will not be immediately remunerative. And yet their work is of equal importance, for it supplies the in-filling to the pattern of the plan. I am hopeful that the Government will find some means of retaining architects—both private and official—upon this work, which will lose none of its essentiality through compulsory postponement. To be prepared would surely justify some financial assistance when needed, and after all we do not ask to be paid in dollars.

Architecture is frequently and most aptly defined as "the art and science of building." In early days the art contained the science, and our buildings were, I suppose, completely functional—whatever that appellation may exactly mean. Then for a while there was a separation between the art and the science. Outward effect was often obtained at the risk of structural security. In more recent days there has been a tendency for the science to outstrip the art, and we are told that the constructional members of our buildings should not be hidden by a mantle of applied art. This divergency of view continues. At one time our homes were designed to give an air and atmosphere of peace and domesticity which some now call an unnecessary veneer. Our factories had little of this veneer applied to hide constructional units. To-day the process seems to be reversed. Many new and novel forms of house building show upon their surface the method of their construction, but we seem to be moving towards a better co-operation between artist and scientist. A visit to the architectural room at the Royal Academy this year disclosed the skill that is being applied to cloak industrial buildings, and so enable them to take their place in close proximity to those of great historic or architectural interest. Amongst the exhibits you could see scheme after scheme to convert to magic power that latent in the black elusive nuggets mined deep or scratched from 'neath the surface of our native soil, or in the slimy liquid poured to tanks and shipped far overseas, to supplement and likely one day supersede the power for long reposed within the palms of men. Here, surely, is the solution. Artist and scientist working together, or, if you prefer it, architect and engineer in co-operation, each fulfilling their respective tasks, each starting together to ensure success.

Science's Aid to Building.

Science will come to our aid in building, and will make much possible that art alone could not provide. It will bring content and ease to living, but it will not make the appeal to emotion that art alone can do. It will not create that mysterious quality of atmosphere without which the great cathedral or the smallest cottage lose an essential and abiding property. Whether that atmosphere is imported through the personality or by the skill of the artist or by some trick in the arrangement of mass and void or light and shade, I know not. I am convinced, however, that we must strive to attain it in our buildings.

I have referred to the effect of the present crisis on the profession as a whole. I must also refer to its consequences upon those seeking to learn their art. The longer capital expenditure upon building is restricted, the less opportunity will be afforded to our younger members of obtaining practical experience. A prolonged period of austerity will prevent their acquaintance with the other crafts with which we are associated. They may become experts in improvisation and in the siting of standardised buildings made to the design of others but they will lack that love of material, that association with the carvers in stone or wood and those who enliven our wall surfaces with their art, part of the heritage which has come down to us and which we hoped to hand on to our successors. For over seven years our field has been restricted. The longer the period of postponement in erection the more urgent the need for certain building will become. To supply these needs an even greater measure of improvisation, of standardisation and prefabrication may be resorted to in the not always proven assumption that they make for economy and speed. It is one thing to possess knowledge and to be unable to use it through force of circumstances, and quite another to be unable to use it when conditions permit because we do not possess it. In some way we must endeavour to make training in our art as complete as the difficulties allow.

Sir Lancelot Keay, K.B.E., P.R.I.B.A.

I have spoken too long of generalities, and I must turn for a moment to things more specific. Despite the cuts in expenditure, much school building will be carried out in the next few years. In this Institute, quite recently, there was held a conference upon the design and construction of schools. New regulations and scientific studies affecting amenities have combined to make the design of schools a task full of interest, and one affording great scope for individual expression. Rules and regulations tend towards standardised planning. It was, therefore, good to note, at the recent exhibition here, how architects had obtained great variety and shown much originality, whilst keeping within the imposed restrictive regulations. To be critical for a moment, I can but feel that in their desire to improve standards, those responsible for the new rules and regulations have listened too attentively to the theorists. Cost has to be counted both in the initial spending and in subsequent maintenance. But when theory tires she grips the hand of practice, and if the twain move on together, a reasonable standard of achievement may be obtained.

Claim of Architects Recognised.

Other work to which we may look forward is in the design of all the many buildings necessary in the development and redevelopment of towns. There is little doubt that our claim as architects to be the predominant partners in the planning of these developments is becoming more generally accepted. The slower tempo which conditions will enforce will give time for this claim to become fully recognised and afford an opportunity for us to strengthen our position by showing our ability not only to design buildings, but also to site them, and thus influence the pattern of the plan in which they fit.

In the development of towns, a new conception and procedure has arisen. The aggregate of private effort, subject as it was to but a small measure of control, often proved unsatisfactory. The restricted operations of local authorities are equally unsuccessful as contributions towards the proper planning of a town. To-day a wider field is open to them, and so far as their developments are concerned there is now less chance of segregation and a greater opportunity for complete community planning. Almost as a competitor in this extended field comes the Government-sponsored organisation for the build-

ing of completely new towns. It is an experiment that has great possibilities for architects acting with other technical advisers from the very inception of a scheme. But in the past towns have grown to serve the needs of man. Some contend that towns develop to supply these needs and cannot be planned ahead. The experiments now being tried will prove or disprove the correctness of this contention. Those who uphold it fear the restrictions of the planners as the planners fear the uncontrolled action of the individualist. But there is surely some happy medium between an unrestricted though natural growth and over-planning, for there is as much to be feared from the former as there is to be objected to in the latter.

The planner who said town planning was an exact science may have been an enemy of the individualist, but he disclosed an attitude too often found amongst those responsible for planning and who, failing to recognise it as an art, will not avail themselves of the advice we architects could and would give most willingly.

The planning standards of density and land areas are necessary, but these standards should be guides to help in planning, not rules to restrict it. Rigidly enforced, they will produce a monotony from which there will be no escape. Used with discretion, they will permit sincerity in planning which will take account of natural amenities and configuration of the land, and thus ensure success. In fixing standards of densities the present tendency appears to be towards an increase over former standards for new development and a considerable reduction in the case of redevelopment. Those who have experienced the loneliness of a "twelve houses to the acre" development will applaud the raising of the standard. Those who thrive in the conviviality of town life will deplore the depopulation of their districts. The claim that lower densities ensure better health can be disproved with ease.

Theoristic Repressions.

It is the way in which we live that is the principal factor in good health. If we are to build new towns without monotony but with all the beauty that the site and the ingenuity of the architects will ensure, then we must be spared the repressions of the planning theorists. If this can be done we shall be afforded an opportunity so unique and with such possibilities that we shall not dare misuse it. In designing these new towns we must strive for lasting beauty, not transient flashiness. In years to come they will be visited by those who will compare what we have done with all the opportunities available to us, with what was carried out in the more leisurely though by no means less artistic days. Those responsible for guiding the development of these new towns will do well to blend and not to segregate the styles of building, and will be well advised to reject a building which contends with others and thus upsets the harmony of the whole. I should have liked to have spoken in detail of the possibilities, and, indeed, of the pitfalls, which await those responsible for the large-scale operations which, starting with housing, gather within their orbit places of work or recreation and all that is necessary for the life of a community.

I am satisfied that this work can be undertaken by a team, working under guidance, providing the achievements of each individual member of the team receives acknowledgment. It is, however, of importance that full responsibility should repose where the work is done and in those who do it. Formerly the decentralisation of power quickly followed the capacity of accepting responsibility for it. To-day the tendency is being reversed and powers once given are being withdrawn and vested in a centralised control. I do not propose to discuss the wisdom of the change, but simply to express the opinion that the removal of responsibility may result in a lowering of the standard amongst those upon whom the discharge of lesser duties falls. Centralisation must involve a swelling bureaucracy trained in regulation rather than in practice which, as an official of long standing, I should much regret. But with all the difficulties of the times, I express the hope that we shall not give way to pessimism. Austerity will compel a greater simplicity in our work, but in the simpler treatment of our buildings we shall learn again the outstanding quality of good proportion and the value of using space uncluttered with the frills used by those who fail to realise the simplicity of all true art. Simplification will also compel sincerity. Lest the plea for simplicity might suggest monotony, I would remind you that an element of surprise is always possible with the artist.

Last year I left with you three words. To maintain the tradition then begun I leave three more to-day: Simplicity, sincerity, and surprise. Perhaps in months ahead these, too, will echo back from Bedford-square in slightly differing form and once again disclose that unanimity of view which I so greatly value.

A vote of thanks, proposed by LORD ESHER and seconded by MR. HENRY WILLINK, M.P., was cordially passed.

COMING EVENTS

Friday, November 14.

BIRMINGHAM AND FIVE COUNTIES ARCHITECTURAL ASSOCIATION. Special Business Meeting and Third General Meeting. Mr. John Swarbrick, F.R.I.B.A., on "The Influence of Sunlight and Daylight on the Functional Design of School Buildings." Royal Birmingham Society of Artists Galleries, Birmingham. 5 p.m.

Monday, November 17.

ROYAL SOCIETY OF ARTS. Cantor Lecture on Industrial Design. "The Effect of Advertising on Commercial Design," by Ashley Havinden, R.D.I., R.S.A. John Adam-street, Adelphi, W.C.2. 4.30 p.m.

ROYAL INSTITUTION OF CHARTERED SURVEYORS (Junior Organisation). Mr. L. B. Keeble, B.Sc., A.R.I.C.S., on "Some Problems of Planning Control." R.I.C.S., 12, Great George-street, S.W.1. 6 p.m.

Tuesday, November 18.

ROYAL INSTITUTE OF BRITISH ARCHITECTS. "Substitute Materials and their Influence on Design," by G. Grenfell Baines, A.R.I.B.A., A.M.T.P.I., and Tom Mellor, A.R.I.B.A. R.I.B.A., 66, Portland-place, W.1. 5 p.m.

CHADWICK PUBLIC LECTURES. Bossom Gift Lecture. Mr. G. A. R. Sheppard, M.A., M.Inst.C.E., M.Inst.W.E., on "Modern Trends in Waterworks Practice." Royal Sanitary Institute, 90, Buckingham Palace-road, S.W.1. 2.30 p.m.

BUILDING INDUSTRIES NATIONAL COUNCIL. Fourth Building Congress. Leas Cliff Hall, Folkestone (continuing on November 19).

THE LONDON SOCIETY. Tour of City churches under the auspices of the Friends of the City Churches. Meet St. Paul's Underground Station. 2.30 p.m.; St. Bartholomew's the Great, 2.40 p.m.; St. Sepulchre, Holborn, 3.30 p.m.; St. Bartholomew the Less, 5.15 p.m.

Wednesday, November 19.

TOWN AND COUNTRY PLANNING ASSOCIATION. "Planning Development Abroad—Czechoslovakia," by Mrs. Monica Felton. 28, King-street, W.C.2. 6.15 p.m.

Thursday, November 20.

TOWN AND COUNTRY PLANNING ASSOCIATION. Mr. H. Edward Newman on "The Internal Planning of the Home." 28, King-street, W.C.2. 1.15 p.m.

Friday, November 21.

ROYAL INSTITUTION OF CHARTERED SURVEYORS (Junior Quantity Surveyors). Mr. F. L. Hasker on "Bills of Quantities from the Viewpoint of an Architect." R.I.C.S., 12, Great George-street, S.W.1. 6.30 p.m.

A.A. CENTENARY CELEBRATIONS

THE PROGRAMME

PREVAILING conditions have put a limit to the number of functions in connection with the Architectural Association's Centenary Celebrations that can be made available to the entire membership. However, it is hoped that this important event in the history of the A.A. will be marked by the attendance of as many members as possible.

A large number of delegates from the Empire and from foreign countries will be present, and members will have the opportunity of meeting them formally and informally at the various functions. Attendance at some of the events is necessarily limited by the space available. Below we give the full programme of arrangements. Those marked with an asterisk are those for which all members may apply to the Secretary, Mr. H. J. W. Alexander, for tickets:—

Wednesday, December 17, 11.30 a.m., Reception of Delegates by the President and Council of the A.A., at 36, Bedford-square. 2.30 p.m., *Opening of the Exhibition, illustrating the history and activities of the A.A. during the past 100 years. Speakers will include Sir Ernest Pooley, K.C.V.O. (Chairman of the Arts Council of Great Britain). Tea. At 36, Bedford-square. Informal dress. 8 p.m., *The President's Reception and Dance, at 66, Portland-place, W.1 (by kind permission of the Council, R.I.B.A.). Evening dress, orders and decorations. Tickets, including buffet and wines, £2 2s. each, including students' guests (A.A. students £1 1s. each).

Thursday, December 18, 11 a.m., *Commemoration Service at St. George's Church, Bloomsbury. Preacher: The Very Rev. the Dean of St. Paul's. Collection in aid of Architects' Benevolent Society. 2.45 p.m., *Conference at 36, Bedford-square. (Details to be announced later.) 5.30 p.m., Entertainment of Delegates by the British Council. 8 p.m., *Gala Performance of Students' Pantomime at R.I.B.A.

Friday, December 19, morning and afternoon, Organised tours in London and the Home Counties for Delegates. 7.30 p.m., Dinner in honour of the Delegates, given by the President and Council, at 36, Bedford-square.

A.A. PANTOMIME

THE Students' Committee of the Architectural Association School of Architecture will present their centenary pantomime at the Royal Institute of British Architects, 66, Portland-place, W.1, on the following dates: Friday, December 12, at 7.30 p.m. (followed by a dance at the A.A.) Saturday, December 13, at 3 p.m.; Monday, December 15, at 7.30 p.m.; Tuesday, December 16, at 7.30 p.m.; and Thursday, December 18, at 8 p.m.

The prices of tickets will be 2s. 6d., 3s. 6d. and 5s., except for the Gala Performance on December 18, when they will be 3s., 4s. 6d. and 6s. Tickets may be obtained in advance from Mr. R. Gazzard at the A.A., 34, Bedford-square, London, W.C.1. Cheques should be crossed and made payable to the A.A. Students' Club Committee (Panto. a/c).

Scientific and Industrial Research in India.

THE Council of Scientific and Industrial Research of the Government of India has established a Building Research Unit, stationed for the present at Roorkee, in the United Provinces, India.

LOOKING DOWN THE YEARS AT

THE BUILDING EXHIBITION

By Our Special Representative

SIXTY-SEVEN years ago, on Monday, April 12, 1880, the first Building Trades Exhibition opened at the Agricultural Hall, Islington, London. In those days, before the Montgomerys took it over, it was described as an annual event, but it was several years before a degree of regularity marked its appearances before the public, and the final pages of the century were being turned before it was so firmly established as to make it purely a matter of time before it became the most popular and interesting event of the industry's calendar.

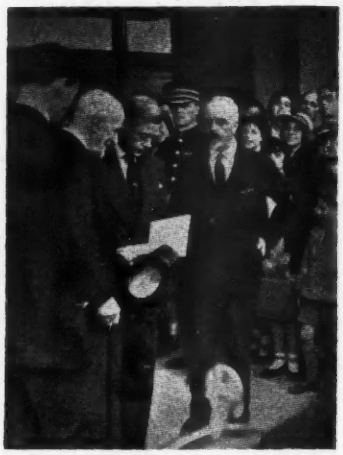
Judged by the standards of the 1930's, of course, the first Exhibition was a modest affair, though the collection of appliances and materials brought together under the same roof for the first time was by no means devoid of interest. All the same, many of the exhibits could not, even by the most agile imagination, be connected with building trade activity.

The following year, in 1881, preliminary announcements made it known that the Exhibition would be exclusively devoted " to exhibits coming under the heads Architecture, Construction, Engineering, Furniture and Decoration, together with builders' plant of all kinds, and sanitary appliances." This, it would appear, was more like the right note to strike, and, indeed, the result was generally acclaimed to be a marked improvement on the previous year. Perfection was still a long way off, however, for attention was called at the time to the lack of some sort of easy reference or classification of the various items displayed, and even the dangerous state of a great many parts of the floor of the hall aroused comment. The deep ruts and holes in the old dilapidated planking which forced the surface were, it was pointed out, far from conducive to the comfort of visitors.

By 1892 the Exhibition had still not got into its stride, and although the need and demand for so important a fixture were as strong as ever exhibitors generally did not appear to be too acutely aware of it. A contemporary report recounts how the Exhibition " was opened in the half-ready and confused state which seems a chronic weakness of such enterprises." Moreover, it was still admitting exhibits not even remotely connected with the industry. For example, there were two or three large stands taken up with broughams, hansom cabs and carriages of all kinds, while furniture occupied other space which might have been more usefully employed for a display of sanitary equipment and appliances which were but meagrely represented. The " hansoms " were not an indirect compliment, we fear, to the founder and first Editor of *The Builder* : they were put there merely to fill space !

A Practical Suggestion.

It was this shortcoming, the inclusion of irrelevant exhibits, which caused *The Builder*, in that year, to suggest the formation of a responsible and qualified committee of selection, a suggestion which, within a few years, was acted upon. It was also apparent, too, even in those early years that the custom of holding the event each year was not in the best interests of either exhibitors or visitors, for it allowed insufficient time for the development of new appliances and equipment, a factor of considerable importance in sustaining the interest and appeal of the Exhibition. Events in the following year crystallised this theory, for in 1893 the opinion was expressed that although such firms as were represented fully maintained their reputation for first-class workmanship, the number was not so large as in former years, and the Exhibition lacked the " go " without which no show could be considered an unqualified success.



THE DUKE OF WINDSOR (as the King) at the 1936 Building Exhibition. On his right is Mr. H. Greville Montgomery, and on his left the late H. C. (" Stow ") Montgomery.

The Exhibition catalogues of those days —that is, those that are still in existence— make interesting reading. The earliest one we have been able to find is that for 1894, it being " The Official Catalogue of the National Building Exhibition, Royal Agricultural Hall, March 16 to 31." The price was 4d. A preface remarks that : " . . . the present Exhibition is organised on novel lines, and is virtually the first of an entirely new series of National Technical Building Exhibitions worthy of the trades represented. . . . The Consultative Council have decided the following points :— (*a*) No exhibits received except those cognate to the Building Trades. (*b*) A rigid observance of classification in sections as marked on plan approved by the Council. (*c*) The Exhibits shall be those of manufacturers rather than of merchants. (*d*) Working machinery, showing process of manufacturing (steam power will be provided). (*e*) Technical lectures will probably be delivered during the Exhibition by eminent gentlemen in the profession." The catalogue goes on to list approximately 140 firms and their goods. Blank spaces were left down the side of each page for visitors' notes. Details were given of brick-making machines making 14,000 to 18,000 bricks per day ; patent roofing tiles, Roman and other patterns, 75 tiles to 87 tiles per square, 15s. to 17s. 9d. per square ; and patent block tin-lined wrought-iron tubes and fittings known as " The Health Water Pipe," which, being screwed together, required " no soldering, and the lining, being as inert as gold or silver, it never corrodes or poisons the water, and no water works pressure can burst it."

Nor did the exhibitors deny themselves the opportunity to get off their chests a few well-chosen self-recommendations. Thus an exhibitor of patent telescopic ladders described his goods as being " unequalled by anything of the kind yet, or likely to be, invented. Very many attempts have been made by ingenious persons to produce something to beat them out of the market, but they have all hopelessly and utterly failed. The great demand, of course, has prompted this competition. These ladders, however, have withstood all the tests that

A REMINISCENCE OF 1909. In this photograph the late King George V (then Prince of Wales) is seen in conversation with Mr. John Watkins, L.R.I.B.A., at that time Terra Cotta manager to Carter & Co., Ltd., and later a partner of Mr. Stanley Hamp, F.R.I.B.A. Queen Mary is talking to Mr. H. Greville Montgomery in the foreground. Others in the picture are Mr. Cyril Carter (in profile on the left-hand stand) and Mr. G. J. Howling, Hon. A.R.I.B.A., now Editor of *The Builder* (centre right, behind Mr. Montgomery).

prejudice and trade jealousy have brought to bear on them through seven years, the result being that they are highly praised by every person who uses them. . . . No other ladders of this description can be sold if ours can be compared with them at the time of purchase." Even H. G. Wells's Uncle Ponderevo might have been exercised to surpass that!

A Decisive Change.

The year 1895 marked the decisive change in the organisation of the Building Trades Exhibition. It was never intended to be a popular event so far as the general public was concerned, yet it had been a difficult task to persuade many to distinguish the difference between an exhibition run on the lines of the White City and Earl's Court and a purely technical and trade exhibition at the Royal Agricultural Hall. This was achieved by Mr. H. Greville Montgomery, Hon. A.R.I.B.A. (later M.P. for Bridgwater), who now interested himself in the Exhibition and undertook its reorganisation. He had no desire in his mind to emulate the best efforts of Imré Kiralfy or P. T. Barnum, but applied himself with great foresight and enterprise to the organisation of an exhibition which would be of definite value to architects, surveyors, builders, sanitary engineers, Government officials and all those whose business it was to deal directly with the building trades. With what success his efforts were attended, those who recollect the pre-war Exhibitions know well.

"The first Building Exhibition I ever attended," said Mr. Montgomery, some 40 years later, "was an amazing spectacle. *Building* Exhibition was purely a nominal title, for the stands displayed a hybrid collection of goods which had no connection whatsoever with the building trades. All the local cheap-jacks had set up their booths and were calling their wares, while coconut-shies and 'hoop-la' were attracting a stream of customers. Quite a flourishing fun fair seemed to be in progress."

Despite these distractions Mr. Montgomery did not fail to appreciate the need for a Building Exhibition run on serious technical lines, and the following year arranged a display of different kinds of bricks which aroused considerable interest and resulted in the organiser of the Exhibition extending an invitation to Mr. Montgomery to share in the project.

"I'll come into the business with you," he said, "if you will give me control of the organisation and if you will put up £500 against £500 of mine in case of failure." Mr. Montgomery recalled how the organiser signified his acceptance of this suggestion and a date was fixed for signing the agreement at the solicitors. The organiser failed to turn up, however, and Mr. Montgomery decided to carry on alone.

Exit the Coconuts.

This presented many difficulties. The cheap-jacks and coconut-shy men were not anxious to relinquish their connection with so remunerative an annual fixture. They were astonished when their applications for space at the next Exhibition were flatly refused and marking-ink manufacturers, spectacle sellers and hosts of others went away muttering darkly of failure.

Mr. Montgomery and his brother, the late Mr. H. C. ("Stow") Montgomery, who partnered him in the enterprise of their first Exhibition in 1895, then took a bold but wise step. They invited the collaboration and assistance of a committee of architects under the chairmanship of Sir (then Professor) Banister Fletcher. This close association with the architectural profession has ever been strongly maintained, and each time the Exhibition has been held since 1895 the President of the R.I.B.A. has been chairman of the Exhibition.

This Consultative Council was composed of some of the most outstanding men of the day, including Alfred Waterhouse, R.A., Sir Arthur W. Blomfield, A.R.A., Sir James Linton, P.R.I., G. F. Watts, R.A., Charles Barry, F.S.A., and W. A. Pite, F.R.I.B.A. In addition, a highly qualified team of judges were appointed by the Science Committee of the R.I.B.A. in connection with the handicraft competitions which were to be among the prominent features of the Exhibition.

In March, 1895, the first Exhibition organised by the Montgomery brothers was opened at the Royal Agricultural Hall by the Lord Mayor of London. It was acclaimed a great success. The countenance and support given by the R.I.B.A. provided just that background of official recognition which Exhibitions of previous years had lacked. The R.I.B.A. also sent from its galleries in Conduit-street an interesting display of architectural models and drawings. The Corporation of the City of London sent some lovely works of art from the Guildhall, among them being perspective views in colour and models of the Tower Bridge, the Central Market and the new Council Chamber. The Carpenters' Company also gave its support to the Exhibition, and lent two magnificent specimens of old oak furniture.

During the Exhibition an official visit was paid by approximately 200 members of the Architectural Association who, after taking tea with Mr. Greville Montgomery, had an opportunity to view the various stands and see for themselves the technical and informative lines on which the Exhibition was reorganised. Other professions and trades connected with the industry were not slow to appreciate the general change, and surveyors, builders, manufacturers and craftsmen enthusiastically welcomed an Exhibition arranged specifically to fulfil their particular needs and interests.

From that first great success, it was decided to hold the Exhibition bi-annually instead of every year, for as Mr. Montgomery said: "I did not want it, with all the hard work it entails, to become a burden on the shoulders of the exhibitors, and I also wanted manufacturers to have time to develop their products between exhibitions, so that they would be able to introduce new features at almost every one."

The wisdom of this decision was soon apparent, for in the next Exhibition in 1897, opened by the Rt. Hon. G. F. Faudel Phillips, the Lord Mayor, the whole of the ground-floor space was taken up by exhibitors, including leading firms in various branches of the trade. The craftsmen's competitions were considerably extended, the loan collections were more interesting and valuable than in 1895, and a novel feature was an exhibition of a series of animated photographs connected with the building trade, some of which were specially taken for the Exhibition.

With the turn of the century, the fame of the Exhibition had spread overseas, and in 1903 its international character was firmly established by a formal visit paid by a large party from the Union Céramique de France. In this year, too, an exhibition of architectural drawings was included in the Exhibition proper.

Move to Olympia.

At the next Exhibition in 1905, the organisers had great difficulty in coping with applications for space, and there was no doubt that a hall twice as big could be as easily filled. It was no great surprise, therefore, that the venue of the 1905 Exhibition was changed to Olympia, a home which has housed it on every occasion since. In that year the whole of the spacious building, ground floor, gallery and even the annexe, was crowded to the last available inch with exhibits, and the event became the foremost of its kind in the world. As before, every exhibit, not strictly pertaining to the building industry, was rigidly excluded.

The Exhibition, now firmly established, continued with undiminishing success until 1938, except for a break owing to the 1914-18 war.

Mr. Greville Montgomery, now 82, maintains a live and intense interest in the Exhibition, but all details and arrangements are in the hands of his son, Mr. Hugh Montgomery, M.C. For nine years now, no Building Exhibition has been possible, for architects, builders, manufacturers and others have been preoccupied with tasks somewhat more urgent. This year, the first post-war Exhibition is to be held at Olympia from November 19 to December 4. In the nine years which have elapsed since the last one was held, the industry has undergone a major upheaval, but while there will doubtless be many new exhibits to be seen there will also be many friendships to renew—for the Exhibition has ever possessed an uncommonly friendly atmosphere.

"THE BUILDER" STAND AT OLYMPIA

"The Builder" stand at the Building Exhibition will be No. 125 Row G (Addison Road Entrance, Main Hall).

BUILDING TRADES EXHIBITION

The following "official visits" have been arranged during the period of the Exhibition:—

Wednesday, November 19.
British Cast Concrete Federation.

Thursday, November 20.
Timber Development Association.
L.M.B.A. Central Area No. 3.

Friday, November 21.
Institution of Electrical Engineers.
Institute of Registered Architects.
L.M.B.A. North-Western Area.

Saturday, November 22.
Essex, Cambs and Herts Society of Architects (and West Essex Chapter).
The Guild of Bricklayers.

Monday, November 24.
Institution of Civil Engineers.
Southern Counties Federation of Building Trades Employers.
L.M.B.A., Central Area No. 1.

Tuesday, November 25.
Auctioneers' and Estate Agents' Institute.
Institute of Clayworkers.
L.M.B.A., Central Area No. 5.

Wednesday, November 26.
Architects' Benevolent Society. 12 noon. Followed by lunch, 12.30 p.m. (Pillar Hall).
National Federation of Clay Industries.
L.M.B.A., Northern Area (the latter will hold a meeting in the Addison Café, Olympia, at which an Open Forum will discuss "Experiences in Working a Production Bonus").

Thursday, November 27.
Estate Clerks of Works.

Monday, December 1.
L.M.B.A., Southern Area.

Tuesday, December 2.
L.M.B.A., South-Western Area.

Wednesday, December 3.
L.M.B.A., South-Eastern Area.

Thursday, December 4.
L.M.B.A., Central Area No. 4.

Other official visits are to be paid by the following:—
Institution of Structural Engineers.
Institution of Sanitary Engineers.
Institute of Public Health and Hygiene.
Institution of Municipal Engineers.
Royal Institution of Chartered Surveyors.
National Council of Building Material Producers.
Association of Building Technicians.
National Housing and Town Planning Council.
Rural Industries Bureau.
Incorporated British Institute of Certified Carpenters.
Amalgamated Society of Woodworkers.

A COST-OF-BUILDING INDEX

A System Devised by

S. PLAISTER, F.R.I.C.S.

HOW does the present cost of building compare with March, 1939? What has been the increase in building costs over the last 12 months? The need for a reliable answer to such questions is becoming increasingly important to quantity surveyors and architects. Two instances can be given where something more than an intelligent guess is called for.

First, many months can elapse between the preparation of an approximate estimate and the granting of a building licence. The client wishes to know what increase in cost has occurred in the interim. Second, the case where a Permissible Amount has been settled for a war-damaged property. This must be scaled up in agreement with the War Damage Commission to the level of building costs prevailing when the work is carried out. What coefficient is to be adopted for the scaling up in each case?

It appeared to the author that a Cost-of-Building Index would be most useful if it could be compiled with reasonable accuracy and kept up to date without too much time and research. It seems obvious that such an Index must fulfil the following conditions :—

(a) It must provide a common denominator for varying types of construction—*e.g.*, Factories, Office Buildings, Schools and Hospitals.

(b) It must be realistic—*i.e.*, based on *actual* and not theoretical building costs.

(c) It must not be unduly cumbersome and therefore costly to operate.

These conditions were met by drafting a very brief schedule comprising one or two of the most representative items found in each trade for the types of work mentioned. The quantity of each item was so adjusted that, when priced out, each trade would be in reasonable proportion to the total. At this stage the schedule or "Price Level Test Sheet" was priced at March, 1939, average rates; an overall adjustment of the quantities was then made so that the total of the Test Sheet would be £100 at March, 1939, prices (Fig. 1).

A supply of identical Test Sheets without prices was produced, and one of these Test Sheets was priced from the lowest tender for each of 25 different building schemes. The cash total of each Test Sheet automatically showed the percentage of cost as compared with March, 1939 These results were plotted in graph form (Fig. 2).

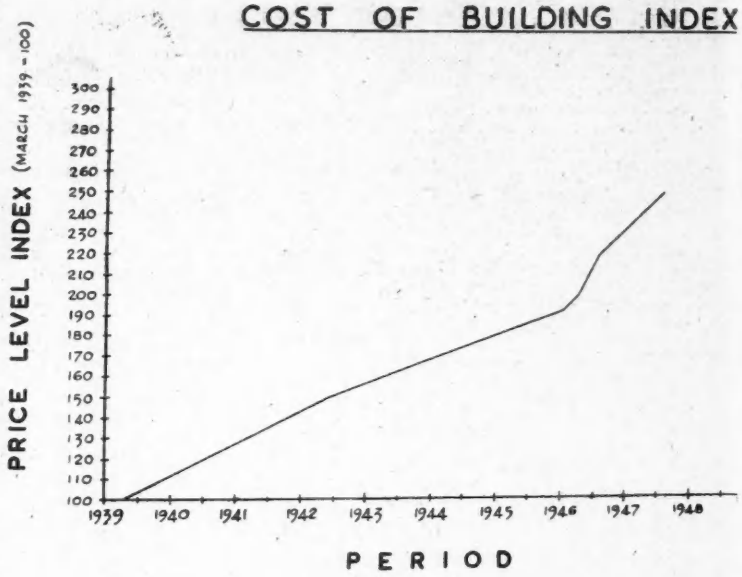


Fig. 2.

The approximate accuracy of the system appears to be confirmed in two ways :—

(i) The resulting percentages yielded a fairly regular curve on the chart (the wage increase on January 1, 1946, showing up particularly well).

(ii) An actual Priced Bill for a pre-war job was entirely repriced at post-war rates, the Index figure thus obtained being within 2 per cent. of the equivalent result given by using the Test Sheet.

A few further comments are necessary :

(a) Housing and alteration work are entirely excluded, housing costs being in a somewhat different category from general building work.

(b) The graph relates to work in grade "A" wage areas—mainly in the Midlands and the South-West.

(c) The cost of Specialists' work (P.C. Items) is assumed to have risen in proportion to general builders' work.

(d) The few irregular results which did not conform to the general graph appear to be due to eccentric estimating.

(e) Where any particular item on the Test Sheet cannot be priced direct from a tender, the rate is deduced by reference to other items in the same tender or from corresponding items in other tenders of the same date.

At first glance it may seem that the items in the Test Sheet do not bear a very practical relationship to each other; why, for instance, No. 8 mortice locks? The answer is that the rates in any Bill for the fixing of various items of ironmongery are likely to be proportionate to each other; hence No. 8 mortice locks are merely the equivalent of a detailed list of ironmongery.

Although the system was intended to yield approximate data for the author's own office use, it is offered as a target for constructive criticism in the hope that something better may emerge.

***Comments on this subject will be welcomed. —EDITOR.

FIG. 1.—PRICE LEVEL TEST SHEET

Name of Job.—Typical, March 1939
Job No.
Date of Tender
Tender Amount £

				s.	d.	£	s.	d.
Yards								
62	—	—	Cube Excavate to form surface trenches not exceeding 5 ft. deep and get out	2	3	6	19	6
12	—	—	Cube Concrete 1 : 3 : 6 in foundations	24	0	14	8	0
11	—	—	Sup Formwork to soffit of concrete floor	2	3	1	4	9
Cwt.	Qrs.	Lbs.						
1	2	—	In ½ in. diameter steel rod reinforcement	18	6	1	7	9
	Feet							
	15	—	Run 4½ in. by 6 in. Precast concrete lintel including casings and reinforcement		10		12	6
Yards								
46	—	—	Sup 9 in. Reduced brickwork in common bricks in cement mortar	10	6	24	3	0
40	—	—	Sup Extra for fair face and pointing internally		6	1	0	0
	16	—	Cube Softwood framed in floors and roofs, etc.	4	6	3	12	0
	50	—	Run 3 in. by 2 in. Framed rebated and rounded frame		4½		18	9
	86	—	Run 2 in. by 1 in. Wrot bearer plugged to wall		2		14	4
			No. 8 *Fix only* mortice lock and furniture to softwood	3	0	1	4	0
Cwt.	Qrs.	Lbs.						
20	—	—	In Structural steelwork fixed complete	23	6	23	10	0
Yards								
40	—	—	Sup Render and set on brick walls	1	8	3	6	8
8	—	—	Sup Portland cement and sand (1 : 3) floated bed ½ in. thick to receive pavings	1	7		12	8
Cwt.	Qrs.	Lbs.						
3	3	—	In Milled lead and labour in flashings	35	0	6	11	3
	Feet							
	70	—	Sup 24 oz. Clear sheet glass and glazing in putty in squares not exceeding 2 ft. super		6½	1	17	11
Yards								
101	—	—	Sup Prepare and twice distemper on walls		5½	2	6	4
65	—	—	Sup Prepare and paint two coats oil colour on steelwork		7½	2	0	7
			Add for profit and general attendance on P.C. items 1¼ per cent. on £85			1	1	3
						97	11	3
			Add for Preliminaries, Water, Insurances, Holidays with Pay, etc. 2½ per cent.			2	8	9
						£100	0	0

THE POLICE SECTION HOUSE, BLACKHEATH ROAD, S.E.: AWARDED THE LONDON ARCHITECTURE MEDAL FOR PERIOD 1937-46.

HORACE FARQUHARSON AND DONALD H. McMORRAN, FF.R.I.B.A., ARCHITECTS.

"IN selecting this building for the award of the Bronze Medal the Jury have chosen a building which is not too traditional to upset the modernists and not too modern to upset the traditionalists—the good old spirit of compromise. . . . In it there is a wonderful spacing of void and mass. Quite candidly, when I looked at it as one of the jury I wondered whether it had been faked at the corners to get that wonderful strength which you see, but when I looked round the corner, and when again to-night I assured myself by looking at the plan, I saw that it is not a fake; it is a piece of excellent planning.

"There it is, in all its simplicity. It perhaps rather overpowers the other buildings in the immediate neighbourhood, but that is what the police force sometimes does, so that it is probably functional. . . . The coping of the main building comes along from left to right (as I am looking at the picture) and then ties into the main wall, but covers the main part of the building and also the big projection. If you play with that building, as I have dared to play with it, with some set-squares, you will see why it is right, because of its perfect proportions."

It was in these words that Sir Lancelot Keay, K.B.E., President of the Royal Institute of British Architects, presented to Messrs. Horace Farquharson and Donald H. McMorran, FF.R.I.B.A., the diploma and bronze medal for the best Metropolitan building erected in the ten years ended December last. In his response, Mr. Farquharson spoke of the help they had received from the then Police Architect, Mr. Mackenzie Trench, and from his deputy, Mr. F. T. Bush, A.R.I.B.A. "We were also extremely fortunate in our builders. The foundations were carried through without a hitch by Messrs. J. W. Falkner and Sons, Ltd., while the superstructure was in the hands of Messrs. Galbraith Brothers, Ltd., one of those satisfying firms who still do their own masonry and joinery. This firm only turns out one quality of craftsmanship, the best, so there was never anything to criticise, much less condemn. Their general foreman, Mr. Young, fully lived up to these traditions. In Mr. Fuller we had an excellent and extremely efficient clerk of the works. . . . One last word. Just when this job came into my office I was most fortunate in grafting on to my older stock an extremely able and energetic young branch. It is to this young branch that the whole of the credit both for the plan and for the design of this medal-winning building is really due. I refer to my partner, Donald McMorran."

Mr. McMorran said: "We cannot always expect the administrator to understand what architecture means to us in this room, but Mr. Trench and his colleagues have shown how the architect in that position can do a great deal to promote the cause which we all have at heart."

Mr. McMorran concluded: "The President has mentioned the debt which we all owe to our masters, and I should like to refer to Mr. Vincent Harris, without whose example and precepts this job would not have had the character which you have been good enough to admire."

CUTS IN BUILDING

STATEMENT BY A.B.T.

THE following statement on cuts in the building programme has been issued by the Association of Building Technicians, 5, Ashley-place, London, S.W. :—

Some indication was given by Sir Stafford Cripps about the proposed cuts in building, although the full statement has not yet been made. Enough is known to make everyone realise that the effect of the cuts will be disastrous to housing and the social services, and will seriously impair our capital equipment for industrial production. The main purposes of the cuts are : (1) To save dollar expenditure in the import of materials from the dollar countries—*e.g.*, timber; (2) to limit "capital expenditure" in this country in order to offset an inflatory tendency; (3) to save steel and coal; (4) to divert manpower to mining, agriculture and export industries.

Housing.—Hopes of the thousands seeking homes, except in mining and agricultural areas, are dashed. Up to the end of September, 1947, the programme of new permanent and temporary houses, conversions and repairs has provided 421,913 dwellings. At the present rate of completion the full 1947 production figure of new permanent and temporary dwellings will be about 140,000. It is expected to complete more in 1948 than in 1947, but to reduce the programme so that "not more than" 140,000 are completed in 1949. By the end of 1949, therefore, we can expect *at the most* not more than 754,000 dwellings completed, compared with the 4,000,000 estimated in 1945 as required within 10 years—in other words, over 1,000,000 short 4½ years after the end of the war. No work is to be started on the new towns in 1948 except the "provision of basic services." In effect the whole vast scheme is being shelved. The estimated target for 1949 is based on timber supplies, which at present come mostly from dollar countries. The uncertain effects on the building industry of a slowdown and the obvious currency difficulties which may affect future "dollar" imports make even the stated target dubious. Although housing in agricultural, mining areas and certain "development" areas will proceed, industrial development will be retarded because of lack of housing accommodation for workers.

Health.—The implementation of the Health Act depends on the construction of new hospitals and health centres. Failing the provision of new premises, the new health services will have to be carried on from existing surgeries as an extension of the old panel system. Many hospitals need complete alteration, as they will be taken over from old poor law institutions. Rural communities, always badly served, will be condemned for many years to the inadequate cottage hospitals—at a time when we need to attract workers back to the land. The reduced allocation of steel for large buildings will affect hospital construction, and the slow-down of building materials production is bound to retard all hospital and clinic construction severely.

Plight of Rural Areas.

Education.—The Education Act requires new schools and premises for training many new teachers. Over 600 of the schools still in use were condemned before the war. Rural areas are among the most poorly served, where in many cases one teacher still deals with all age groups. The lack of places in schools for technical and professional training has hit very hard the ex-Service men and women whose training was interrupted by several years. The nation cannot afford to relax efforts to maintain and increase the school-building programme. Future prosperity depends on our young people, on their adequate general and technical education.

Industry and Production.—The reduction in the allocation of steel to factories to 30,000 tons per quarter will mean the slowing down or cessation of work on some of them, preference to be given to those on export products, certain "essential products," and to some factories in development areas where there is unemployment. The inevitable result will be the retarding of modernisation of all our industries, many of which are expected to compete in the foreign market with American products. The Working Parties for a number of important industries, in boots and shoes, hosiery, cotton, furniture and pottery, all report the urgent need of building construction as fundamental to even average efficient working. The home market will endure shortages of a very large number of consumption goods, and it is difficult to see how industry with obsolete equipment—for which adequate factory, office and housing accommodation is basic—will be able to adapt itself quickly to the fluctuating and varied demands of foreign markets.

Present economic plans depend upon selling our goods abroad as much as on producing them here; with the menace of an American slump threatening disaster there, we can expect increasing competition in every sellers' market as more and more desperate efforts are made to sell American goods with the aid of American dollar loans. British industry must be ready to meet the challenge if we are to base our plans for economic survival on ever-increasing exports.

Unemployment for Technicians.

The Building Industry.—The effect of slowing down our inadequate present building operations on the industry itself will be serious. It is likely that operators and technicians will become unemployed, with a drift of labourers away from building. Craftsmen and technicians cannot be absorbed into other industries without complete retraining. Under the adult training and apprenticeship-master schemes many have been trained for craft work at great expense, only to find that the industry cannot absorb large numbers of them. When building operations are once more free to expand a disintegrated industry will require years to re-man and reorganise. With decreasing construction there is the danger that the labour force will become unbalanced and the progression of trades on remaining jobs much more time-wasting and uncertain.

Whatever the level of construction the country needs an efficient building industry; at present it is one of our most chaotic and out of date, with some 170,000 registered firms averaging 4½ men to every employer. If ever an inquiry and reorganisation were needed it is now! The changing priorities in our production programme make it all the more essential for the building needs of the country to be expeditiously and economically fulfilled. The number and organisation of firms, the best means of agreeing and carrying out contracts, site organisation and progressing, prices and profits, should be the subject of inquiry. It is incredible that one of the basic industries on which all others depend, and on which our health, education and family life depend, has so far completely escaped examination.

Materials.—The supply of materials is obviously a crucial determining factor in the building programme. No statement has yet been made except that other materials would be "matched up to timber" which is in shortest supply. Sir Stafford Cripps stated that the number of houses to be built could be reconsidered in the light of available timber supplies, especially if we succeed in obtaining it from non-dollar sources. Before the war large quantities came from the Scandinavian countries, Finland and the U.S.S.R., which still wish to export it.

The adjustment of the level of production of other materials to timber means that there can be no progressive increase of supplies; instead a decrease in production which for all materials except plasterboard and cement is still below pre-war level. Planned production of all materials for increased rather than decreased output is essential.

A Negative Attitude.

To assume that the shortage of any one material, such as timber, necessarily means reduction in total output is a negative attitude of despair. It is difficult but not impossible to construct houses without timber and with very little steel. Alternative materials and types of construction such as aerated concrete blocks, reinforced concrete floors, beams and staircases, flat roofs, can be used. The Government should publicise the results of valuable research and experiment already made and insist on the use of methods and materials suited to our present supply position. Particular emphasis should be laid on the lower fuel-consumption materials. The recent work carried out by the Building Research Station in collaboration with the Ministry of Works is outstanding and its application would undoubtedly enable the industry to provide the houses needed with the present labour force—houses that are warmer, more sound-proof and better equipped than any to which we are accustomed.

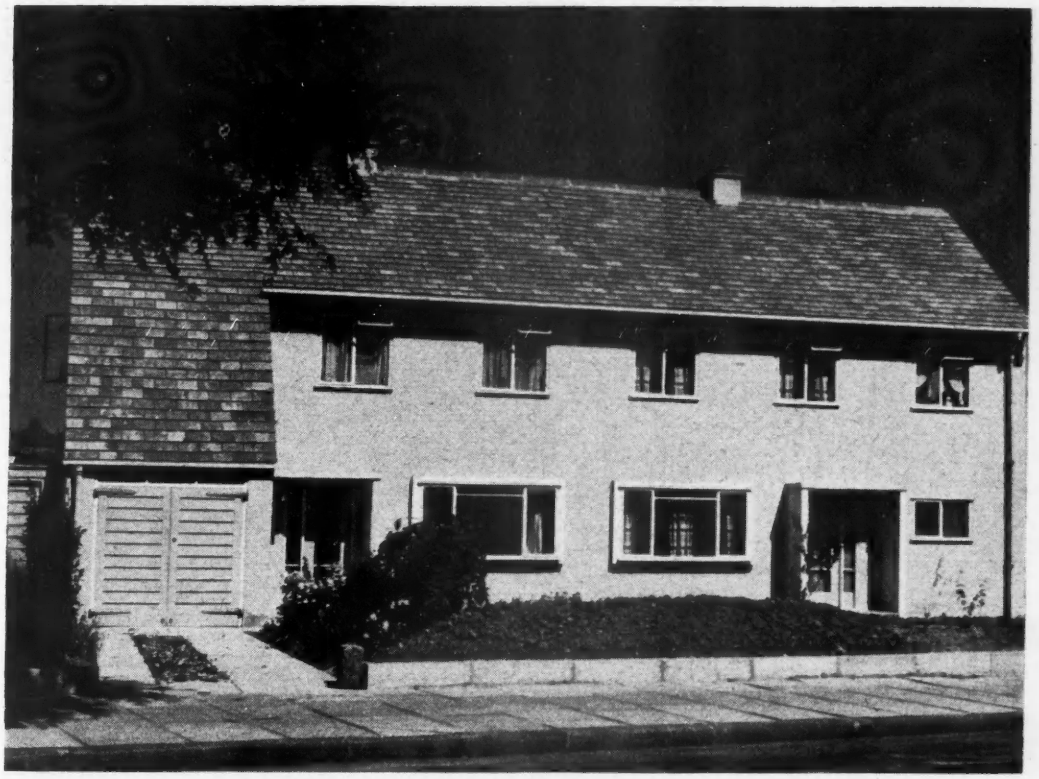
Manpower.—Manpower is one of the basic problems for increased output of coal and all other industries. There need be no withdrawal from the building industry if manpower is found elsewhere—by withdrawals from luxury trades, rationalisation of distribution, attracting women into industry, and drastic cuts in the Forces.

Prosperity Depends on Building.—A re-deployment of resources on a basis which would improve our basic capital equipment for a rising standard of living in the near future would be understood and accepted. But slashing cuts which will lower the standard of living, impair the social services and lower the efficiency of our industry will lead to progressive worsening of our general conditions without at the same time laying the basis for a sound future economy.

Full production of houses, schools and hospitals must be maintained to provide for the health and well-being of all and to give the incentives necessary for an all-out production drive. Continued and speeded-up construction of electricity generating stations, gasworks and factories for all except luxury goods is essential to lay the basis for a prosperous future Britain. Cutting the basis of our economy will mean disaster.

The Guildhall, York.

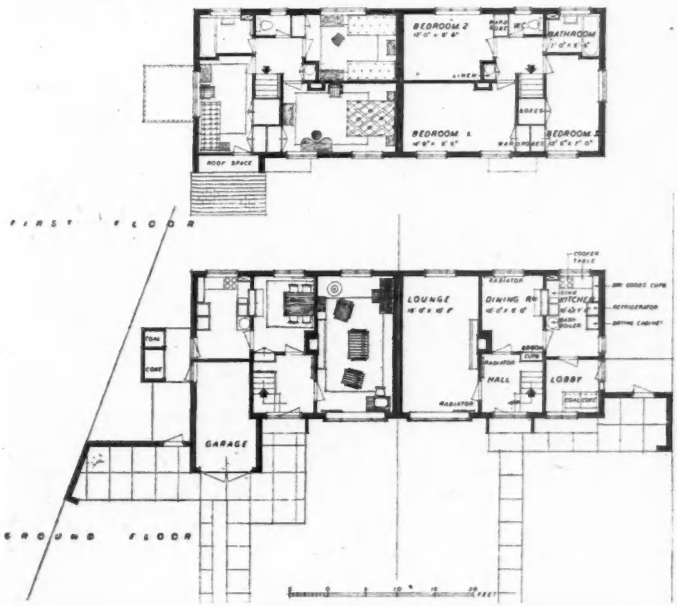
THE 15th-century Guildhall, York, which was blitzed during an air-raid in April, 1942, and of which only the shell remains standing, is to be restored. The Guildhall dates back to 1446, and was built by the Mayor and Commonalty and the Masters and Brethren of the Guild of St. Christopher. Ten oak columns, which supported the roof, stood on stone octagonal bases; from their capitals sprang ribbed spandrels, which lent considerable charm to the interior. Oak for the restoration will be presented.



PAIR OF HOUSES, BROMLEY, KENT

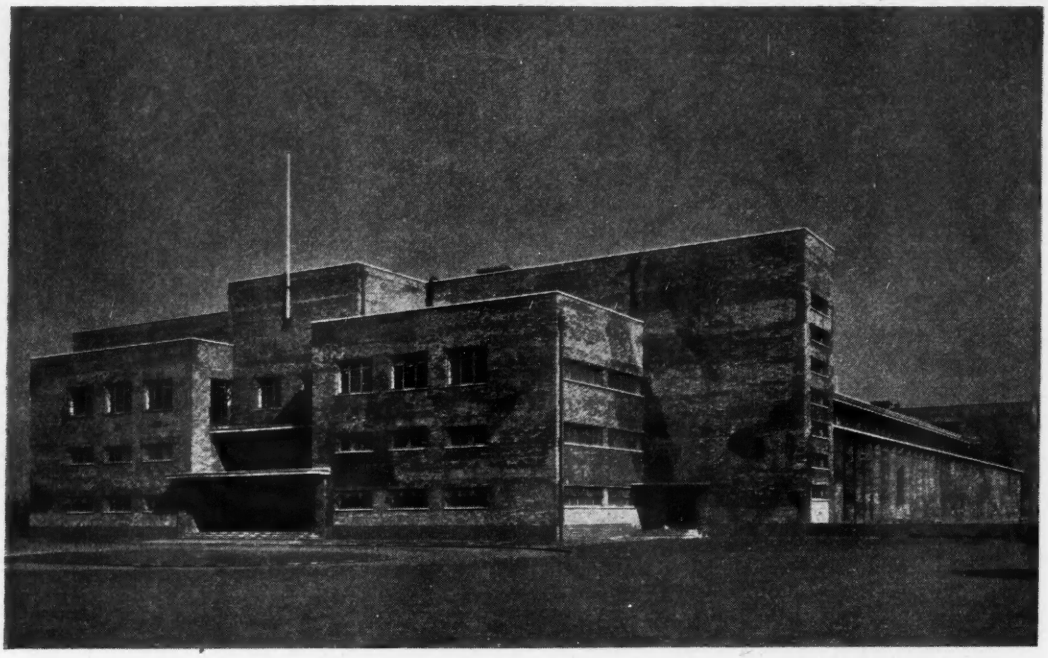
HARRY MONCRIEFF, A.R.I.B.A., AND EDNA M. I. MILLS, B.A. (Arch.), A.R.I.B.A. (of CO-OPERATIVE PLANNING, LTD.), ARCHITECTS

THIS PAIR OF HOUSES WAS DESIGNED by Mr. Harry Moncrieff, A.R.I.B.A., and Miss Edna M. I. Mills, B.A. (Arch.), A.R.I.B.A., of Co-operative Planning, Ltd., for the Staff Homes Housing Association, Ltd. Three housing estates incorporating this type of house are now in course of construction. The houses were built of lightweight "Y-tong" concrete blocks imported from Sweden. These building blocks are of the lime/shale type—are light in weight, readily cut, and have excellent heat insulating properties. The blocks are approximately 20 in. by 10 in. by 8 in. The ground floor is of solid construction finished in "Corbulin"; the first floor of normal wood construction. The roof spans unsupported over the 18 ft. depth of the house, and is constructed of light timber trusses with purlins and rafters. The truss members are connected with "Bulldog" tooth-ringed connectors. The windows are E.J.M.A. standard casements. The roofing is of brown 18 in. by 12 in. "Hardrow" concrete slates. The external walls are rendered with white spar dashed on. Internal walls are rendered only in one coat and finished with Marb-l-Cote plastic paint.



The lounge of each house is fitted with the first two prototypes of a heating unit manufactured by Banstead Boilers, Ltd. This consists of an open fire which can be closed by means of a patent cover; it is fitted with a patent boiler which supplies ample hot water to bathroom and kitchen and also heats through a calorifier radiators in the lounge, hall, dining-room, kitchen and bathroom. It is interesting to note that this heating unit operated satisfactorily throughout last winter on the normal domestic fuel allocation and kept the house warm and comfortable and provided ample hot water for a family of two adults and two young children. The kitchens are very well equipped with built-in gas cookers, wash boilers, refrigerators, drying cabinets and stainless steel sinks.

The contractors were Messrs. Blaxill Bros. (Builders), Ltd., 122, Stanstead-road, Forest Hill, S.E.23.



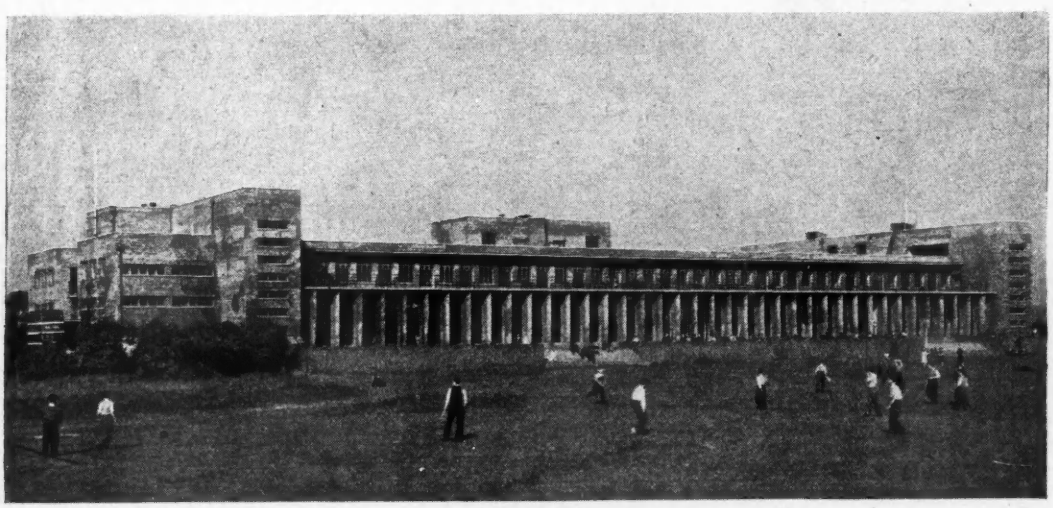
View from the South-West (Wartime Camouflage is still visible).

CANTEEN, RECREATION BUILDING AND DAY CONTINUATION SCHOOL FOR BOOTS PURE DRUG CO., LTD., BEESTON, NOTTS.

HENRY TANNER (E. T. DOWLING, F.R.I.B.A., AND W. H. TANNER, F.R.I.C.S.), ARCHITECTS

BEFORE THE PLANNING OF THIS LARGE CANTEEN BLOCK was undertaken, the architects worked in close collaboration with their clients' Works Planning Committee, whose knowledge of local conditions, the special requirements of their staff, and problems and difficulties likely to be encountered in a project of this kind proved invaluable. In the first place, a decision as to the correct siting of the canteen block had to be reached, and this necessitated the planning of the complete layout of the extended factory, offices, day continuation school, bus station and playing fields. The site chosen as being most suitably placed in the eventual layout was located directly above underground workings of a coal mine in the vicinity. It was, therefore, necessary, as a precaution against subsidence, to come to an agreement with the mine owners to leave adequate support in the workings.

Prior to the erection of this building, it had been necessary for the staff to have meal hours staggered and use a much smaller canteen located in one of the factory buildings. This system having been considered inconvenient and uneconomical, the problem set the architects was first to decide how best to cater for upwards of 2,000 employees at one sitting. One



General View, from the South.

A Staff Rest Room on the First Floor of the Canteen.

Main Entrance Hall and Mezzanine Balcony, Canteen.

CANTEEN, RECREATION BUILDING AND DAY CONTINUATION SCHOOL, BEESTON, NOTTS.

single large unit capable of serving meals for this number at one time was considered to be more economical than more than one smaller unit, thus avoiding duplication of cooking equipment and services. While eventually, upon completion of the fully developed factory layout, it is intended to provide a separate day continuation school for members of the staff, this school had to be accommodated temporarily in one end of the canteen block.

The scheme designed to satisfy these requirements consists of one large building of two floors with entrances and mezzanines at each end, in which are located spacious reception halls, circulating corridors, and adequate cloakroom and lavatory accommodation. The main section on the ground floor is given over to the cafeteria served from a central kitchen. Owing to the width of the building, a large central well is provided with a flat roof at first-floor level and "Glascrete" roof lights to give good natural lighting in the kitchen and inner sections of the cafeteria.

At the entrance end of the building nearest to the existing factory blocks a lift is installed for the purpose of conveying visitors to reception rooms on the mezzanine floor, at which level a central balcony provides a point of vantage from which the modern factory buildings and general site layout may be viewed. On the first floor is located a large dining room for visitors and heads of departments, opening on to a broad terrace which overlooks the playing fields. Service to this section is provided from a central service room to which food is conveyed by lifts from the main kitchen below. On this floor also are large and well-equipped recreation rooms for staff, and a library and reading rooms. At the end of the building, remote from the main factory, the temporary school has been arranged, and consists of a large lecture hall, fully equipped gymnasium, class rooms, laboratories, staff rooms, etc., all cut off from the canteen section and having their own entrances, lavatories and cloakrooms.

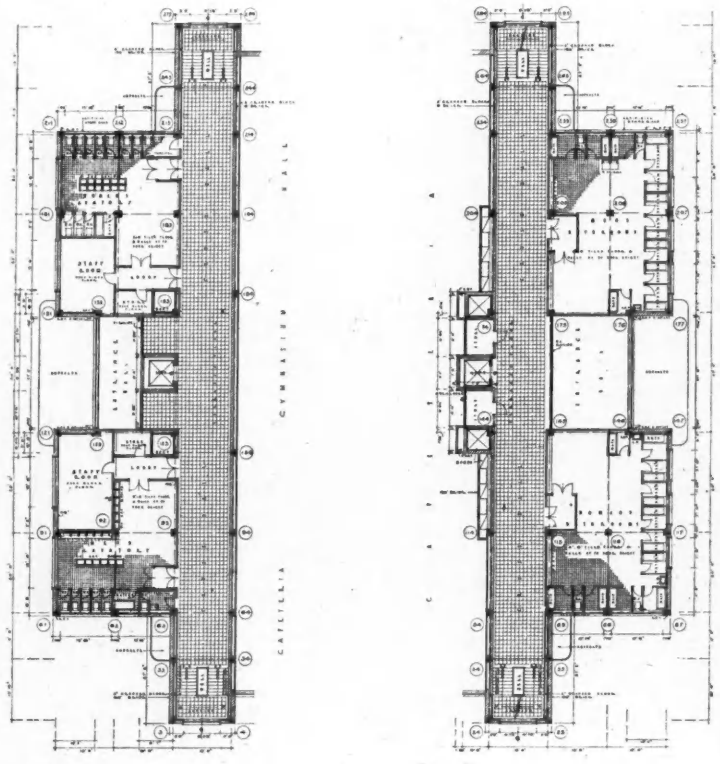
The building is steel-framed on mass concrete block foundations, and floors and roof are of concrete and hollow tile construction. Wall panels and piers are of brick faced with local facings of a very pleasing buff colour, with a high plinth in hard brown coloured bricks. In order to minimise the noise which would inevitably arise in a cafeteria catering for so many diners at one sitting, the entire ceiling is suspended from the structural floor over and treated with acoustic plaster. The effect of this has proved most satisfactory.

Much thought was put into the problem of heating, ventilation and the provision of the necessary steam and water supplies for the kitchen. High-pressure steam mains were installed underground from the main power house, situated at least ¼ mile distant, to serve heating, and hot water service calorifiers are located in a basement chamber where circulating pumps are also housed. Steam is used for the cooking equipment and for the heat batteries on four main thermostatically controlled air treatment sets, from which air is distributed throughout the building through a network of airways incorporated in the structure; vitiated air is mechanically exhausted from high-level grilles suitably positioned to eliminate stagnant air pockets.

Combined convective and radiant low-pressure hot water panels are installed generally to deal with heat losses through the fabric, and are capable of maintaining a suitable temperature during the night period and when the air plants are not operating. Separate systems provide fresh filtered air to the kitchen, and an extraction plant removes vitiated air from the kitchen and service spaces. Special consideration was given to the ventilation in view of the very large numbers of people using the building at one time.

The use of steam from the power house has meant the elimination of the necessity for fuel storage and boiler plant in or near the canteen building, and consequently improved atmospheric conditions obtain in its immediate vicinity. Although the entire building is approximately an acre and a half in area, it is interesting to note in these days that it was erected, equipped and ready for occupation in 1938, just over 12 months from the date of the signing of the contract. The general contractors were Messrs. Walter Lawrence and Son, Ltd., and following is a list of the main sub-contractors employed:—

Steelwork, Dorman Long and Co.; structural floors, Caxton Floors, Ltd.; reinforcing bars, Twisteel Engineering Co.; metal windows, Henleys Metal Windows; roof lights, J. A. King and Co., Ltd.; asphalt work, R. J. Goddard and Co.; lifts, Marryat and Scott; heating and ventilation, Young Austen and Young, Ltd.; sanitary fittings, Davis Bennett and Co., Ltd.; tiling, Cope and Co., Ltd.; terrazzo work, Art Pavements and Decorations, Ltd.; wood block floors, Stevens and Adams, Ltd.; concrete slab pavings, Trent Concrete Company; glass, Pilkington; electrical work, Boots Pure Drugs Co. Building Department; shutters to service, Hasking, Ltd.; acoustic plaster ceilings, Honeywill and Stein; ironmongery, Carter and Aynsley, Ltd.; flag staffs, guard railings and balustrades, Comyn Ching and Co., Ltd.



MEZZANINE FLOOR PLAN

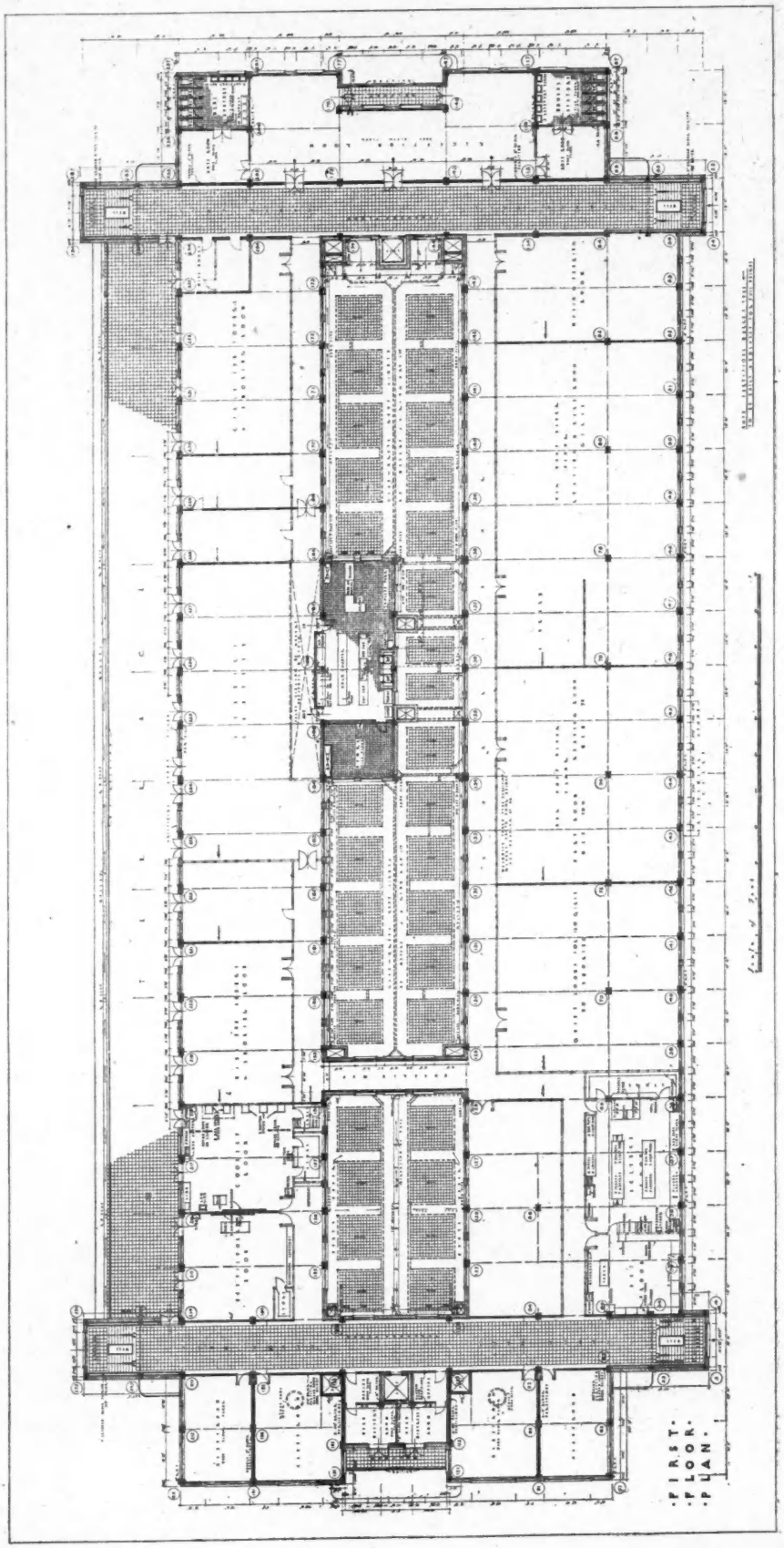
CANTEEN, RECREATION BUILDING AND DAY CONTINUATION SCHOOL, BEESTON, NOTTS.

HENRY TANNER (E. T. DOWLING, F.R.I.B.A., AND W. H. TANNER, F.R.I.C.S.), ARCHITECTS

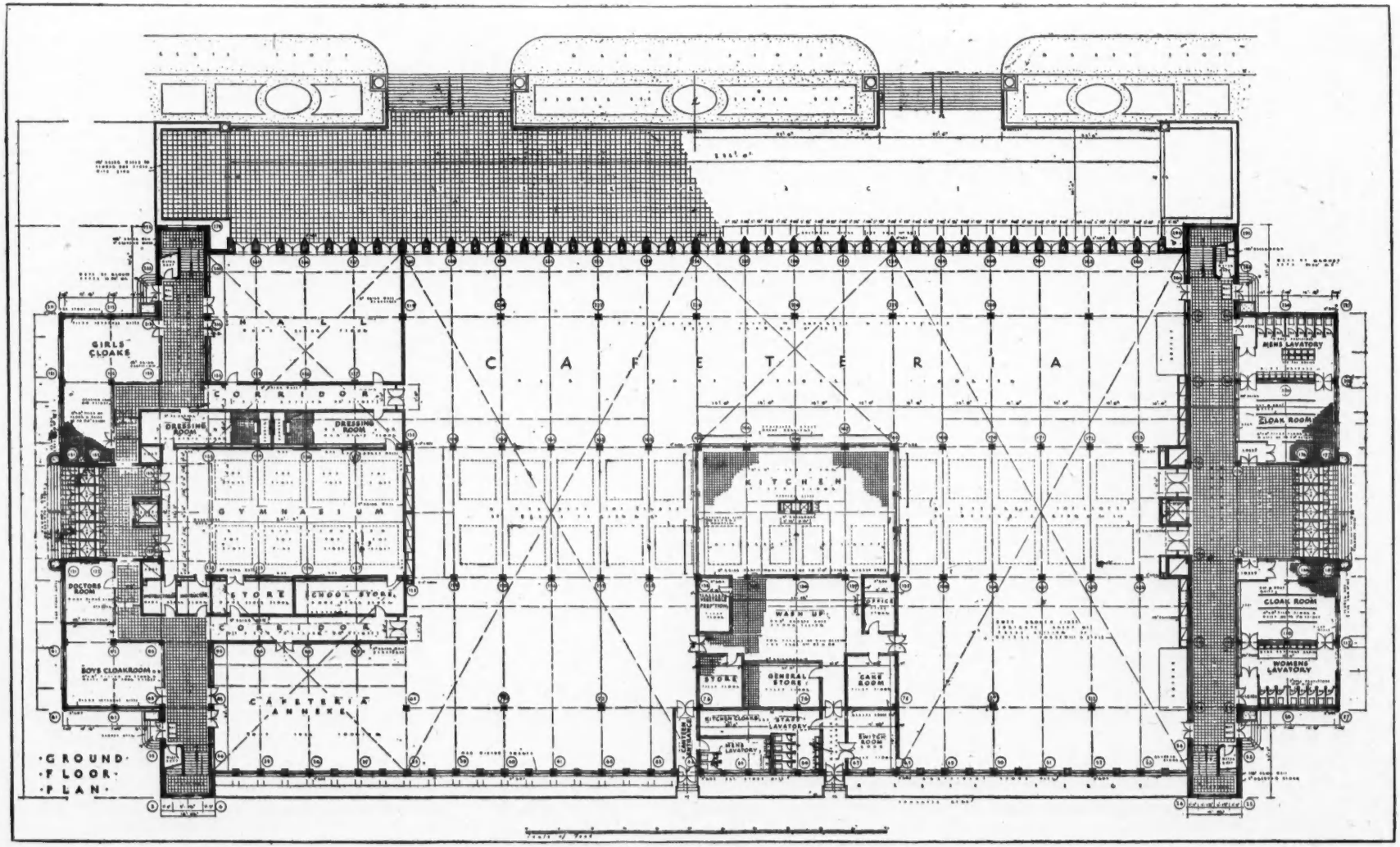
Cafeteria on the Ground Floor of the Canteen.

Service Canteen on the First Floor.

CANTEEN, RECREATION BUILDING AND DAY CONTINUATION SCHOOL, BEESTON, NOTTS.



First-floor Plan.



Ground-floor Plan.

CANTEEN, RECREATION BUILDING AND DAY CONTINUATION SCHOOL, BEESTON, NOTTS. HENRY TANNER, ARCHITECTS.

CORRESPONDENCE

Architects in Private Practice: Their Extinction or Survival?

To the Editor of *The Builder*.

Sir,—I desire to inform all members of the profession that in my anxiety at the possible consequences of the curtailment in capital expenditure I had already taken action before the publication of the letter in your issue of October 31 over the name of Mr. John Swarbrick. I need hardly say that I am continuing in the action already taken.

Lancelot H. Keay,
President, Royal Institute of British Architects.
66, Portland-place, W.1.

To the Editor of *The Builder*.

Sir,—No doubt many architects in private practice will respond to Mr. Swarbrick's admirable letter in your issue of October 31. It is to be hoped that any efforts to restrain the growth of bureaucratic staffs will not be too late, but judging from the number of advertisements for architects and assistants still being inserted in the technical journals by Government controlled authorities, I wonder if their architectural departments are not already too strong for their progress to be checked easily. The continued search for additional staff shows that they are gaining strength, and this at a time when building is at a minimum.

Mr. Swarbrick believes that the eclipse of private architects is no part of the Government programme: I am not so sure of this.

C. H. Watson, L.R.I.B.A.
Beaconsfield, Bucks.

To the Editor of *The Builder*.

Sir,—The long letter in *The Builder* for October 31 draws attention to the serious plight of the private architect. If this is the present condition, what is the remedy? The economic crisis will not allow the Government to complete its building programme. They also propose to reduce the building labour force by 400,000 men. This will further aggravate the position. These facts must be faced.

If private architects are not to become extinct, they should group themselves together and do work on a co-operative basis, paying the same salaries as local authorities. Service and not profits alone must be the rule for everyone. Under such a scheme the Government or local authorities might be persuaded to divert some of the essential work to private architects, and so keep the profession alive until better days dawn.

The irony of the whole position is that there is any amount of work to do, and as time goes on more work will accumulate. With the amount of destruction to make good, and new buildings required, architects should have enough work to keep them busy for the next hundred years. It is good to know that some are devoting themselves to the task of trying to find a solution to the problem which is not insoluble.

J. E. Rhind.
30, Woodlands-avenue,
Weybourne,
Near Farnham.

Lutyens Memorial Fund.

To the Editor of *The Builder*.

Sir,—I note from your last number that the memorial to the late Sir Edwin Lutyens is going to take the form of four volumes costing 25 guineas. They may be well worth the money, and no doubt will be of very great interest to the limited number of people who can afford them. At the same time, however, are there not thousands of the younger members of the architectural profession to whom they would be of the greatest interest and benefit whose limit is not 25 guineas but 25s.?

Surely the works of such a master should be easily accessible to every student—and are not most of us students all our lives?

Further, they would be an excellent antidote to what some of us older architects regard as the "packing case" architecture which is at present being perpetrated.

"Lysicrates."

L.M.B.A.'s 75th Birthday.

To the Editor of *The Builder*.

Sir,—As your readers have perhaps gathered, the L.M.B.A. this year celebrates its 75th birthday.

What to call it? Lest anyone think we have made a mistake in calling it our diamond jubilee let me say at once that we have done this after taking advice on the question, and that we know that Queen Victoria's Diamond Jubilee marked the 60th year of her gracious reign.

R. E. Stenning.
Secretary, L.M.B.A.
47, Bedford-square, W.C.1.

Ballast: Is There a Racket?

To the Editor of *The Builder*.

Sir,—I have been reading with interest the correspondence in *The Builder* on the above matter. In our area there has been a practice of supplying "all-in ballast" at 8s. 6d. per cubic yard, loaded in lorries by hopper, A—two yards shingle, and B—one yard washed sand.

With ¾-in. shingle at 9s. 4d. per yard cube and washed sand at 5s. 10d. per yard cube, there is a charge of 25s. 6d. per three-yard load, whereas the pithead price laid down by the Ministry of Works for materials loaded in this way is 24s. 6d. per three-yard load. There certainly appears to be something that is not in order.

We should like to mention that to-day we have heard that the pits in our area are charging up sand and ballast at their respective prices when a mixed load of ballast is required and note we are being charged 1s. per load less for the same material which is supposed to be at a "controlled price."

R. E. Cripps,
For W. H. Cripps and Son, Ltd.
5, Claremont-gardens,
Tunbridge Wells.

"NEW TOWNS ESSENTIAL"

MR. SILKIN AT WELWYN GARDEN CITY

The Minister of Town and Country Planning, Mr. Lewis Silkin, M.P., speaking on November 6 at Welwyn Garden City, referred to the impression that seemed to be abroad that, as a result of the economic crisis, the new towns were not going to be built. This was mistaken. The problem of London's "overspill" was so great that new towns could not possibly be shelved. The Minister for Economic Affairs had said in the House of Commons on October 23: "Work on the new towns during the coming year will, in general, be limited to the provision of basic services, though it may be that some houses might be provided in the mining or industrial new towns as part of the general housing programme."

This meant, Mr. Silkin said, that all the new towns which had been formally launched would go forward. These were: In the London Area—Stevenage, Crawley, Hemel Hempstead and Harlow; and, if the Order were confirmed, Welwyn and Hatfield. In County Durham (the only provincial area where formal steps for the establishment of new towns had yet been taken) homes had to be provided for thousands of workers at the Trading Estate at Aycliffe, together with schools, recreation facilities, and all the other amenities on the spot; and at Easington it was proposed to build the first clean, well laid-out and fully provided town for miners which this country had ever known.

In the new towns to serve London, physical development during 1948 would, in general, be limited to starting with the provision of sewerage and water services and the construction of roads. Mr. Silkin hoped that these towns would be ready to start building operations in 1949. A two-year period mainly devoted to planning and preparatory work would in any case have been necessary for such major projects, so that the new towns had not lost much. Everything depended on how ready we were for a big building effort in 1949-50.

The speaker paid a tribute to the pioneering work of the Welwyn Garden City Co., which would always be remembered in the history of town planning. Welwyn and Hatfield were so close to each other that it seemed to him that their expansion as two new towns could best be undertaken by a single agency—a Development Corporation as provided for in the New Towns Act. The Corporation, if it were set up, would be instructed that the two new towns must be kept absolutely distinct and that the green belt between them must be inviolate.

A private company, however public spirited, had to have regard to the interests of its shareholders, and Mr. Silkin doubted whether power over the whole future of a town ought to be in private hands. That power ought to be vested in the people. The proper co-ordination of the movement of industry and population into the new towns, which would have to be controlled, would involve intolerable interference with a private concern such as the Welwyn Garden City Co. Parliament had decided that the proper agency for this task was the Development Corporation provided for in the New Towns Act, and he felt that in the case of Welwyn and Hatfield an agency of this kind would provide the best solution for dealing with such problems as water and sewerage. He had discussed these ideas with the local authorities and they had met with a sympathetic reception.

The Minister of Town and Country Planning, Mr. Lewis Silkin, M.P., consulted the local authorities concerned with the development of Hatfield and Welwyn Garden City at a meeting in London on November 5. Mr. Silkin explained that his proposal to set up a development corporation to develop Hatfield as a new town with a population of 25,000 and Welwyn Garden City as a new town of 36,500 involved no suggestion of merging the two towns. Mr. Silkin's proposals were favourably received by the local authorities, and another consultation with the Minister was arranged to take place in a fortnight's time.

BOOKS RECEIVED

Model Building Byelaws Illustrated. By G. Eric Mitchell. (London: B. T. Batsford, Ltd.) Price 15s. net.

House Repairs. By M. Stuart. (London: The English Universities Press, Ltd.) Price 4s. 6d.

Building in Cob, Pisé, and Stabilised Earth. By Clough Williams-Ellis, F.R.I.B.A., and John and Elizabeth Eastwick-Field, AA.R.I.B.A. (London: Country Life, Ltd.) Price 15s

New Ideas for Farm Buildings. (London: Farmer and Stock-Breeder, Ltd.). Price 30s. net.

PAYMENT BY RESULTS

A NEW ERA FOR BUILDING

By R. DOLMAN BIBBY, A.C.W.A.

THE principle of payment by results having at long last been agreed, let us consider what this means to the builder and his workmen.

In the first place, we must remember that unless some real benefit accrues to both the employer and his workmen as a result of working the new agreement, the idea of payment by results will suffer a rapid decline in popularity and extent of application. Experience in other industries has shown that if care to ensure the equitable operation of bonus schemes is not taken at the outset, it is inevitable that constant friction, engendered by mutual suspicion and lack of confidence, will ensue, with resultant losses to all.

The aims and expectations of both employer and employee which must be fulfilled in order to assure them that the scheme is worthwhile can be summed up in the words of an old North Country saying—"There's no taste in nowt." If all discussions on bonus rates started with a real appreciation of this point by all parties, much valuable time would be saved.

The employer naturally wants a better return for the wages paid, and the workman, of course, wants more money for more output. How can a mean be fixed which will satisfy both and also be economically sound from a national point of view?

One of the difficulties in fixing a fair mean or norm is the fact that neither side really knows what can be called a "fair day's work." This results almost invariably in a battle of wits in which each side advances a case which it knows to be unsound, in the hope that concessions from each side will bring about an approximately fair settlement. All this is very understandable if viewed from an historical standpoint, but it still wastes time which cannot be spared to-day.

If a successful start on payment by results schemes is to be made in the building industry, it will be necessary to borrow the experience gained, at no little cost, in other industries during the past two decades. Industries which have already got over their teething troubles provide ample proof that all successful systems have their root in the observance of certain simple rules. Granted these rules (whether consciously appreciated or not) and a sense of fairness on each side, success must be assured.

Rules to be Followed.

Any list of rules is, of course, open to modification or addition, but I am sure that all experienced in this field will agree with that which follows, even though they may have differing views as to the relative importance of each.

(a) The scheme must be simple and clearly set down for the understanding of all concerned with the operation thereof.

(b) The bonus payment must be assessed in such a way that it is payable together with the time wages for the week in which the task is completed, or the week following at the latest.

(c) The task must be of such a size that the workman can see whether he is earning bonus or not. As far as possible the task should be capable of completion within the period between two paydays.

(d) Payments "in lieu of bonus" must never be resorted to.

(e) There should be a clear understanding of what comprise "normal working conditions," and a proper basis for the relief of the workman from responsibility for "delays outside his control," which affect his earnings.

(f) There must be some basis for the measurement of both quality and quantity of work performed before payment is made. This will involve extra work for foremen and surveyors, but it cannot be avoided. It is no use paying bonus one week and expecting a refund a week or so later. Workmen in such cases have a not unnatural tendency towards short memories.

(g) The assessment of the task to be performed must be made with a real appreciation of what is possible. A badly fixed rate, either high or low, has a very disturbing influence, and must be avoided as the plague. It is my experience that the employer, in the main, has no more idea of what constitutes "a fair day's work" than has the workman.

(h) A spirit of fairness must be brought to the settlement of all disputes, no matter how unreasonable the other side's case may appear. In time this attitude will bear fruit, and the number of disputes will diminish. Fairness breeds fairness!

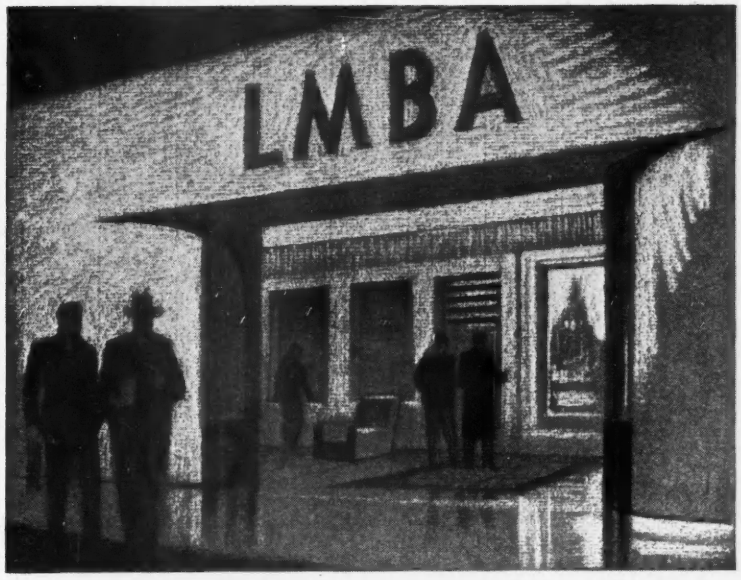
The introduction of a scheme of payment by results involves the acceptance of new responsibilities by all concerned. The employer must ensure that the general organisation and supervision of the job are of such a standard as will give the men a proper opportunity to earn at the rates set. He must also ensure that he has a ready knowledge of which jobs are not earning bonus, and why.

There is no room under payment by results for the workman who will not pull his weight, and employer and men must combine to see that he is weeded out; on the other hand, it is necessary to ensure that "round pegs are fitted into round holes," and that the older men are given the opportunity to find their right billet. If a large and undesirable labour turnover is to be avoided, then a careful review of all failures to make bonus is necessary before the apparently unproductive worker is discharged.

On the other hand, the workman now has to face up to the fact that his effort will be really measured, and because so many building jobs involve gang work a new standard of discipline and continuity of effort is necessary from all men.

Conclusion.

It will be obvious from the above comments that the introduction of a successful payment by results system is not quite the easy and foolproof step which it might at first sight appear to be. The size of each undertaking will decide the extent to which it is possible to justify the employment of the expert time-study man, but it is certain that there may be considerable need for the use of the consultant by the small firm which cannot justify the full-time engagement of specialist staff. A few pounds spent in the early days can be easily offset by the immediate yield of a system started in the right way.



An Artist's Impression of the L.M.B.A. Lounge at the Building Exhibition.

L.M.B.A. ARRANGEMENTS AT BUILDING EXHIBITION

THE President of the National Federation of Building Trades Employers, Mr. E. J. Smith, of Cardiff, and Mrs. Smith, are to be "at home" to members of the National Federation and their friends in the National Federation-L.M.B.A. Club Room at the Building Exhibition at Olympia on Tuesday, November 25, from 2.30 p.m., and afterwards at tea in the Digest Restaurant, which for the period of the Exhibition is being completely and, according to advance reports, very effectively disguised as a Club.

In the evening of November 25 the President of the London Master Builders' Association and Mrs. Smallwood are entertaining the President and officers of the National Federation and Presidents and officers of the Regional Federations to dinner in the Dorchester Hotel.

The organisation of the club room is in the hands of the L.M.B.A., acting for the National Federation as well as itself, and each of its Areas is taking turns of duty there. A list of Area functions will be found on page 539, along with other Exhibition visits. The L.M.B.A. itself is holding a Ladies' Day on Friday, November 28, when the President and Mrs. Smallwood are entertaining members and their wives to tea in the Pillar Hall.

ROUND THE BUILDING EXHIBITION

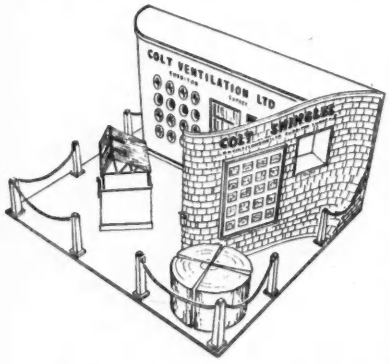
REVIEW OF EXHIBITS—I

The first post-war Building Trades Exhibition opens at Olympia, London, on Wednesday next, November 19. Below we give brief details of some of the exhibits of general interest. Our review will be continued next week.

BRICKS, TILES AND ROOFING MATERIALS

ABBEY TILE CO., LTD. (No. 243, Row M), display "Abbey" fireplaces in glazed mottled tiles and faience. "Abbey" fireplaces are slabbed in a wide variety of colours and designs, and can be made up to architects' or customers' own requirements.

D. ANDERSON AND SON, LTD. (No. 113, Row F), show the full range of "Red Hand" roofing and lining felts and dampcourses. Included are "Bestos" asbestos roofing, which has a mineral base of asbestos fibre saturated and coated with mineral bitumens; "Twinplex" reinforced underslating felt, suitable for fixing direct to rafters; "Sanodor" insulating felt; and dampcourses in various qualities. Another feature of the stand is the various



THE COLT STAND (L.223). Ian Jeffcott, F.R.S.A., and Douglas Dick, F.R.I.B.A., Architects.

roofing systems in which the company specialises, namely, "Thermotile," "Durodek," "Macasfelt," and others, but particularly to be noted is the new "Thermosteel" insulated decking.

ARMSTRONG CORK CO., LTD. (No. 173, Row J), feature "Accotile," a hard-wearing flooring material, being a thermoplastic composition tile made of asbestos fibres, mineral pigments and asphaltic or resinous binders. It can be supplied in a range of plain and marble colours, permitting a wide variety of colour schemes and patterns. Details of the colour range will be sent on request. ¼ in. thickness is recommended by the manufacturers for houses, schools, offices and similar buildings; $\frac{3}{16}$ in. thickness is recommended for entrance halls and public spaces subjected to very heavy traffic.

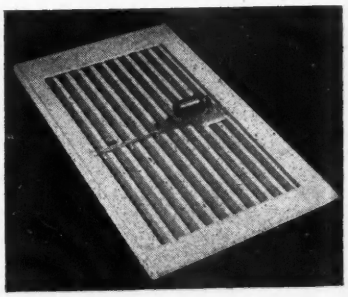
The subject of roofs is the principal theme of the stand of WILLIAM BRIGGS AND SONS, LTD. (No. 32, Row B). Here, in an interesting and informative manner, full constructional details are available for waterproofing and weatherproofing flat, pitched or curved roofs with flexible bitumen materials. A wide array of attractive finishes in green, grey, marble, granite and redstone give a good selection in colour harmony. An interesting exhibit is a new type of metal deck recently evolved by the firm's roofing research staff.

The stand of CARTER & CO., LTD. (No. 74, Row D), was designed by Mr. Keith Murray, F.R.I.B.A., and facilitates comparison between the various materials made by the company. It includes examples of exterior and interior tiling, faience and glazed terra-cotta, enamels and earthenware glazes. Industrial tiling, which is an important part of the company's output, is also featured. Examples of Carter products for decorative purposes are shown by the use of different colours and finishes, moulded relief tiles, slip-outlined lettering and decoration, painted

THE MARLEY STAND (H.164).

tiles and glazed faience mosaic. Floor tiles in a wide variety of colours and sizes are displayed, together with examples of the use of ceramic mosaic, the making and fixing of which have recently been re-commenced by the company.

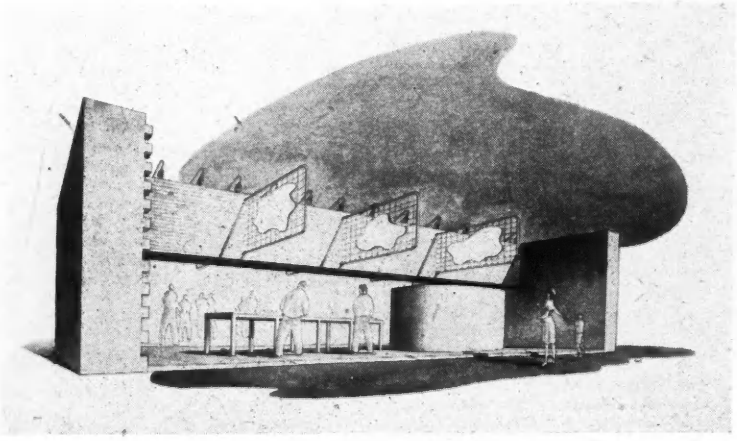
The stand of W. H. COLT (LONDON), LTD. (No. 223, Row L), is an adaption from structure units designed by Mr. Ian Jeffcott, F.R.S.A., and Mr. Douglas Dick, F.R.I.B.A. The exhibit includes the products of the associate company, Colt Ventilation, Ltd., and includes photographs and descriptions of ventilation



THE COLT PR/T EXTRACTOR VENTILATOR. Designed for industrial use and thermostatically controlled. (Stand L.223).

units based upon requirements appertaining to the natural ventilation of buildings, industrial and domestic. Also shown are illustrations of semi-detached cottages for rural workers, roofed with Colt Canadian cedar roofing shingles.

THE EASTWOODS GROUP (No. 163, Row H) displays some of the building materials which the group manufactures and distributes, and is constructed entirely with its products. The ceiling of the stand is carried out in insulating board and suspended by the "Pimco" metal system. The parent company, Eastwoods, Ltd., manufactures all grades of stock bricks, including multi-facings and sand-faced multi-coloured fletton bricks, as well as plain flettons, Portland and "Durocrete" rapid hardening cement, concrete roofing tiles, concrete sewer pipes and other concrete products, and tiled fireplaces, in addition to producing washed and graded aggregates for concrete and large quantities of building sand.



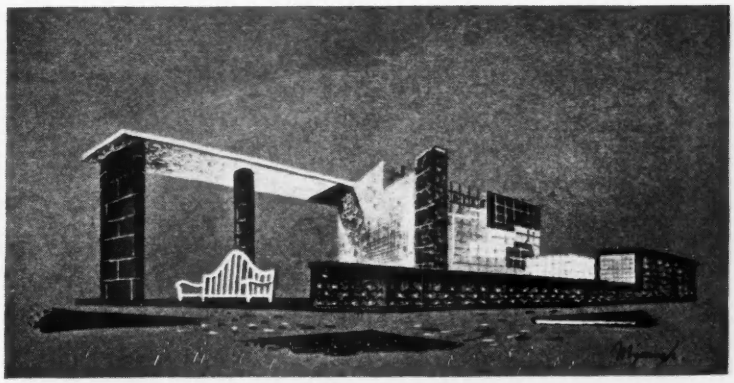
THE LONDON BRICK COMPANY'S STAND (E.87). Richard Nickson, F.R.I.B.A., Architect.

One end of the stand of FISONS, LTD. (No. 184, Row J) is occupied by a specimen wall built of the firm's "Burwell" kiln-fired gault white facings, embodying a complete panel of flushed facing bricks. A model of the firm's brickworks is also shown, which, together with photographs of the actual process employed in making Burwell white bricks, will be of interest to the pupils from the various technical schools visiting the Exhibition.

LANGLEY LONDON, LTD. (No. 90, Row E), feature many interesting models of Langley's range of best-quality clay roofing tiles, which are designed to effect savings in timber, brickwork, labour and money. Also displayed are Langboro' floor tiles in many attractive colours; reinforced and other types of roofing felt; bitumen expansion jointing (self-sealing); bitumen damp-proof course; decorative plastics in the form of bath panels and bath surrounds, and wall panelling and skirting.

The main feature on the stand of LONDON BRICK CO. (No. 87, Row E) is a hollow, reinforced brick beam built in "Phorpres" common bricks, having a clear span of 37 ft., between two supporting walls, each 12 ft. high by 20 ft. long. The beam carries photographs illustrating the process of manufacture of "Phorpres" bricks, and the supporting walls display the range of clay products manufactured by the company. One of these walls is constructed in "Phorpres" rustic facing bricks, one face being colour washed; "Phorpres" cellular rustics are shown in section. Sand-faced facing bricks of dark and light colour are incorporated in the other wall, the light-colour sand-faced being a new product. Returns to the end of this wall demonstrate partition blocks and the new rug-faced building blocks. Sections projecting from the wall illustrate the use of "Phorpres" hollow clay floor blocks. A selection of standard special bricks are set out on tables on the floor of the stand.

THE MARLEY TILE (HOLDING) CO., LTD. (No. 164, Row H), have as the first portion of their exhibit a traditional oast-house, recalling the Kentish origin of the firm. The oast-house will be tiled with Marley plain sand-faced tiles in antique colour, and the vertical tiling to the end and sides will be carried out in the same tiles. The hand-made bricks are supplied by the High Brooms Brick Co., Ltd. Inside the oast-house is exhibited a floor displaying the new Marley floor tiles, and a demonstration ceiling showing the use of Marlith wood wool slabs as a suspended ceiling, either with exposed decorated finish, or as a base for the normal plastered finish.

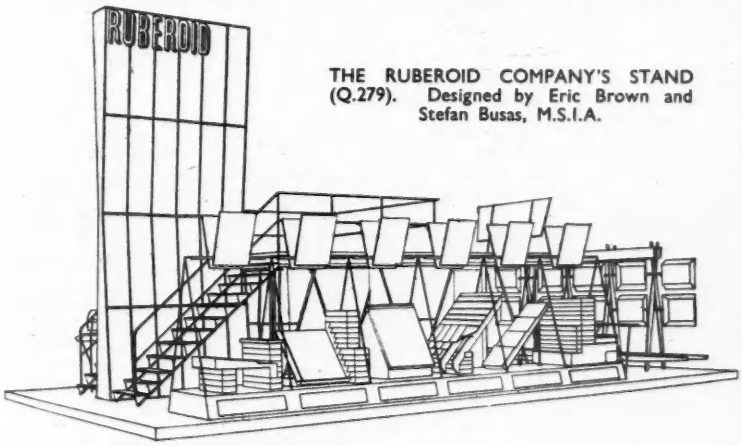


CARTER & CO.'S STAND (D.74). Keith Murray, F.R.I.B.A., Architect.

On Stand No. 279, Row Q, THE RUBEROID CO., LTD., exhibit a wide range of materials and specifications, which include an area of Ruberoid built-up roof laid on concrete; a section of tiled roof, demonstrating the tensile strength of reinforced Zylex slaters' felt, which can be laid across open rafters; an interesting display of the colourful and attractive

THE "TARPLANER" PORTABLE ELECTRIC PLANE (British Equipment Co.'s Stand D.66).

Ruberoid strip slates, twin-butt and octagonal; and a model of Pluvex membrane sheeting, a built-up form of damp-course for waterproofing tunnels, reservoirs and swimming pools. A section of Ruberoid taken from a roof laid nearly 30 years ago offers testimony to the quality of Ruberoid roofing. Attention is also drawn to the Servicing Department, which offers a free inspection and report on existing roofs. A portion of the stand is roofed with Ruberoid steel roof deck.



THE RUBEROID COMPANY'S STAND (Q.279). Designed by Eric Brown and Stefan Busas, M.S.I.A.

BUILDERS' AND CONTRACTORS' PLANT.

A.C.E. MACHINERY, LTD. (No. 259, Row 0), display a representative choice of the "A.C.E." range of power winch units, tower platform hoists, concrete elevating plants and a workman's goods hoist. These include a 4-cwt. lightweight portable plate-sided petrol-driven winch unit for warehouses, sack hoisting and general purpose duty. A 5-cwt. narrow drum petrol driven winch unit fitted with a J.A.P. air-cooled petrol engine for similar duty will be displayed, particularly for the export market.

ACROW (ENGINEERS), LTD. (No. 95, Row E), show adjustable steel propping and shuttering for temporarily supporting reinforced floors, beams, walls, columns, etc., during construction. Ferroforms (steel shuttering panels) for temporary centring to floors, walls and columns; adjustable steel props, for supporting temporary shuttering to floors and beams; adjustable steel floorcentres, for shuttering to *in situ* fire-resisting floor construction, whether of the solid concrete or of the hollow brick variety. Also tubular scaffolding, concrete mixers, saw benches and a mobile unit storage system.

E. P. BARRUS, LTD. (No. 138, Row G), display a range of machine and power tools embodying the latest design and principles of well-known makers. There are the Aro pneumatic sanders, polishers, screwdrivers, drills, impact wrenches, etc.; Blackhawk hydraulic pipe benders and industrial maintenance kits; Cleveland high-speed drills, reamers, etc.; Disston band saws, circular saws, both solid and inserted teeth, and a range of Stanley portable electric and hand tools.

Among the exhibits of MESSRS. BLAW-KNOX, LTD. (No. 288, Row R), are the 3½T, the smallest of the Rex range of concrete mixers for small jobs; the Rex 5E trailer mixer, which can be hitched to a lorry and driven at speed to the site; the Rex 7S concrete mixer, powered with either petrol or diesel engine. Blawform shuttering, fabricated entirely of steel, and used for all types of concrete construction, is also shown, together with Blaw-Knox steel roadforms made in 10 ft. sections and coupled together by a rigid lock self-aligning joint plate.

THE BRITISH EQUIPMENT CO., LTD. (No. 66, Row D) show a number of machines, including the Tarplaner, a portable electric plane with a 5/8 h.p. universal electric motor; generators; Skilsaw portable electric tools; Skilsaw saws, ranging in size from a depth of cut in wood of 1½ in. to 4⅜ in; Skilsaw belt sanders; Skilsaw floor sander; and Skilsaw disc sanders.

THE BRITISH HOIST AND CRANE CO., LTD. (No. 60, Row D), exhibit the "Ant"

THE CEMENTONE STAND (Joseph Freeman Sons & Co.), No. C.39.

mobile hoist in two separate forms. The first type of machine deals with heights of 15 ft. and 19 ft. and is geared to deal with 5/7 cwt. platform loads. The second machine is known as the "Queen Ant" model, which provides for lifts of 15 ft., 30 ft. or 45 ft. from ground level; this machine is fitted with the exclusive "Moonraker" rail. Also shown are the "Antelope" barrow and a new builders' hoist.

METAL AGENCIES CO., LTD. (No. 140, Row G), show a Rota-Hoist—for raising bricks or other materials from ground level to any part of a scaffolding; "Macoblok" concrete block-making machine, which is of all-steel welded construction and provides rigidity combined with low weight and ease of handling; and also the "Avon" de-froster, for 200-250 volts (A.C. mains only). This is a neatly packed and assembled device by means of which frozen pipes can be rapidly "defrozen." Up to 100 ft. of pipe can, it is claimed, be thawed out in two to five minutes. The mains lead provided can be connected to a power point or ordinary domestic light socket.

MILLARS' MACHINERY CO., LTD. (No. 239, Row M) display Millars' mobile weight-batching plant, designed to meet the requirements of the average-size contract on which consistent quality concrete is required, mobile 10-NT non-tilting drum concrete mixer, with a capacity of 10 cu. ft. mixed concrete (14 cu. ft. unmixed); drop bottom gauge box, to permit accurate volume proportioning, at low cost, with no extra shovelling or loss of time; 3-in. open discharge diaphragm pump; 3-in. self-priming contractors' centrifugal pump; and 4 ft. 6 in. diameter roller pan mixer.

R. H. NEAL AND CO., LTD. (No. 294, Row R) display the Neal Type "NM" mobile crane (2 tons capacity); Neal Type "G" portable petrol crane (15-cwt. capacity); Neal Type "AM" portable petrol crane (8-cwt. capacity); and Winget/Neal 10/7 "Rapid" mixer (rotary closed drum concrete mixer). The "NM" crane is an example of an up-to-date mobile crane with the following interesting features: (i) Full-circle slewing, with dual roller path; (ii) Diesel power unit; (iii) heavy duty pneumatic tyres; (iv) patent safety hoist unit; (v) two-speed travel both "forward" and "reverse"; (vi) patent instantaneously reversible freewheel differential drive; (vii) all motions independently controlled and independently power-operated.

MESSRS. FREDERICK PARKER, LTD. (No. 270, Row P) have arranged a comprehensive display of their machinery appropriate to the building trade. It shows various models of the "Little Giant" hand-fed concrete mixer, for mixing concrete, tarmacadam, hair-plaster, compo, mortar and plaster; the "Speedia" rollerbearing hopper-fed concrete mixer models; the "Non-Tilt" hopper-fed range of mixers, mounted on two pneumatic tyred wheels for high-speed towing; the Parker "Hoistex" equipment, for express hoisting services to heights of 100 ft. and over; the "Monarch" light stone breaker, for crushing soft sandstone, soft limestone, soft concrete, clinker, blue bricks and materials of equivalent hardness; and the new high-speed trailer "Little Giant" concrete mixer.

SMITH'S FIREPROOF FLOORS, LTD. show the system of floor construction which consists briefly of patent hollow concrete blocks with blind ends, placed in pairs, permitting the use of correctly designed reinforcement in both directions to support all types of loading. (No. 269, Row P.)

MESSRS. TRIANCO, LTD. (No. 269, Row P) take the opportunity to present their concrete product machinery, including the K2 heavy duty full automatic and the G2 hand-operated block-making machines. Periodic demonstrations will be given, and a scale working model of the Trianco elevating, mixing and conveying system will also be seen on the stand. The Trianco paddle-type mixer is the machine which has been specially designed to meet the needs of the concrete product manufacturer, and is for mixing aggregates up to ¾ in. grading. Steel moulds for kerbs, garden edging and fence posts will be shown, and typical examples of concrete products produced on Trianco plant will be available for inspection.

CONSTRUCTIONAL AND METALWORK, CEMENTS, ETC.

THE BRITISH STEELWORK ASSOCIATION'S exhibit (No. 44, Row C) is confined to examples of the use of structural steelwork in buildings and in bridge construction. There are various models, including the B.I.S.F. type "A.1" house, the Brabazon Hangar, and the Barton and Walton Bridge. The range of the industry's work will be indicated by a series of photographs surrounding the canopy.

The COPPER DEVELOPMENT ASSOCIATION stand (No. 278, Row Q) is designed by the Association's Consulting Architect, Mr. A. L. McMullen, M.A., A.R.I.B.A., in copper and copper alloys. Two main semi-circular columns, sheathed with polished copper sheet, and the Association's symbol, consisting of copper tubes welded together, figure largely in the design. The structure below the showcases is panelled with strips of polished copper, gilding metal, brass and nickel silver. The canopy has a ceiling with copper-sprayed panels, with roof lighting, and a fascia of green, edged with brass sections and bearing the Association's name in letters of polished copper. A model of a house illustrates some of the chief uses of copper and its alloys in building.

RICHARD CRITTALL AND COMPANY LIMITED (No. 5, Row A) representing the Richard Crittall group of companies, show an extensive range of engineering services for hospitals, hotels, restaurants, cinemas and other public buildings, showrooms and shops, offices, schools and colleges, flats and private residences. These services include heating, ventilating and air conditioning, hot water services, steam services, boiler house installations, electrical installations, hotel and canteen kitchen and service installations, fire prevention, water purification, swimming baths, laundry installations, hospital sterilizing and anaesthetic services. Radiant heat systems are among the many special features of particular interest operated by steam, hot water or electricity, including the new "Medrae" electric medium temperature radiant warming panels and "Medrae" electric portable radiant warmers.

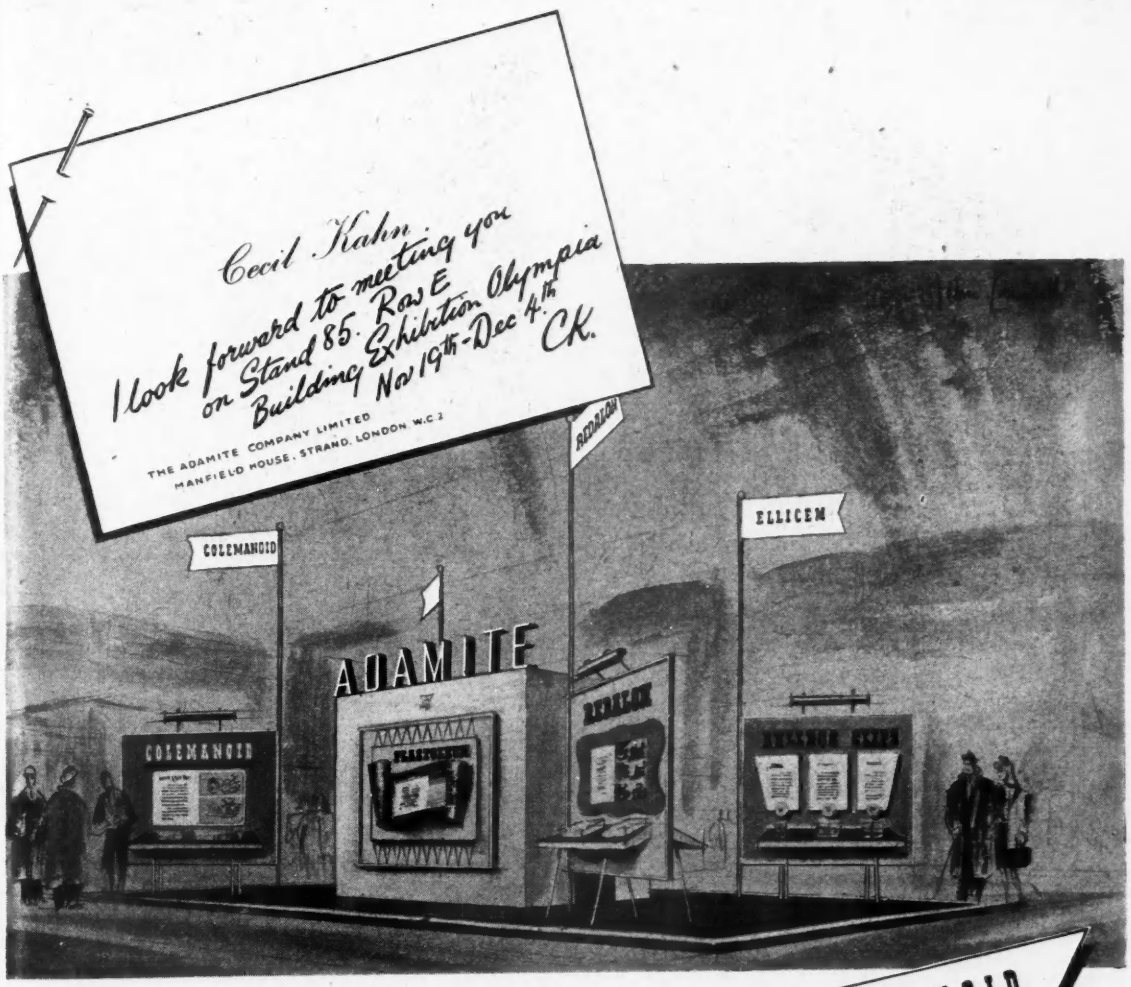
Emphasising the importance of keeping contracts to time, DURAFENCING, LTD., have transferred their Progress Planning Department to their Stand (No. 141, Row G). This illustrates the control and supervision of their fencing erection service, and visitors are invited to follow the progress of individual contracts. Representative panels of various types of fencing are shown and the actual components are displayed separately to illustrate the quality, structure and strength of the complete fence.

THE FOAMED SLAG PRODUCERS FEDERATION LTD. (No. 158, Row H) demonstrate in a comprehensive and attractive manner five methods of foamed slag concrete construction for external walls: (1) 11-in. cavity wall construction with inner leaf constructed of 18 in. by 9 in. by 4 in. foamed slag slabs; (2) 9-in. wall constructed in 18 in. by 9 in. by 9 in. foamed slag concrete hollow blocks; (3) 8-in. Winget-Cubitt prefabricated cavity walling system; (4) 8-in. cast-in-situ foamed slag concrete wall constructed with patent lightweight shuttering; (5) 8-in. cast-in-situ wall constructed by method requiring no shuttering.

MESSRS. JOSEPH FREEMAN SONS AND CO., LTD. (No. 39, Row C) have erected a section of a house looking out on to a garden. This method of illustrating the firm's materials demonstrates the decorative and protective properties of Cementone products, under actual working conditions. The crazy paving and paving slabs in the garden section are coloured with Cementone No. 1 permanent colours for cement, and architects and builders can see how it is possible to manufacture pre-cast concrete products in a variety of tints. At the rear of the stand, a working demonstration shows how it is possible to waterproof brickwork, etc.

LAFARGE ALUMINOUS CEMENT CO. LTD. (No. 68, Row D) are manufacturers of Ciment Fondu, the British-made aluminous cement. An important feature of this stand is an impressive collection of photographs of various types of works on which Ciment Fondu has been used. Technical representatives of the company are present to explain the reasons for using Ciment Fondu in each case, and to offer advice on the particular properties of this cement for any specific purpose. The fullest data are available in the form of practical exhibits, graphs and literature.

On the stand of LEAD INDUSTRIES



ADAMITE *is showing*

COLEMANOID
Concrete Waterproofer and Hardener

ELLICEM
Cement Paint

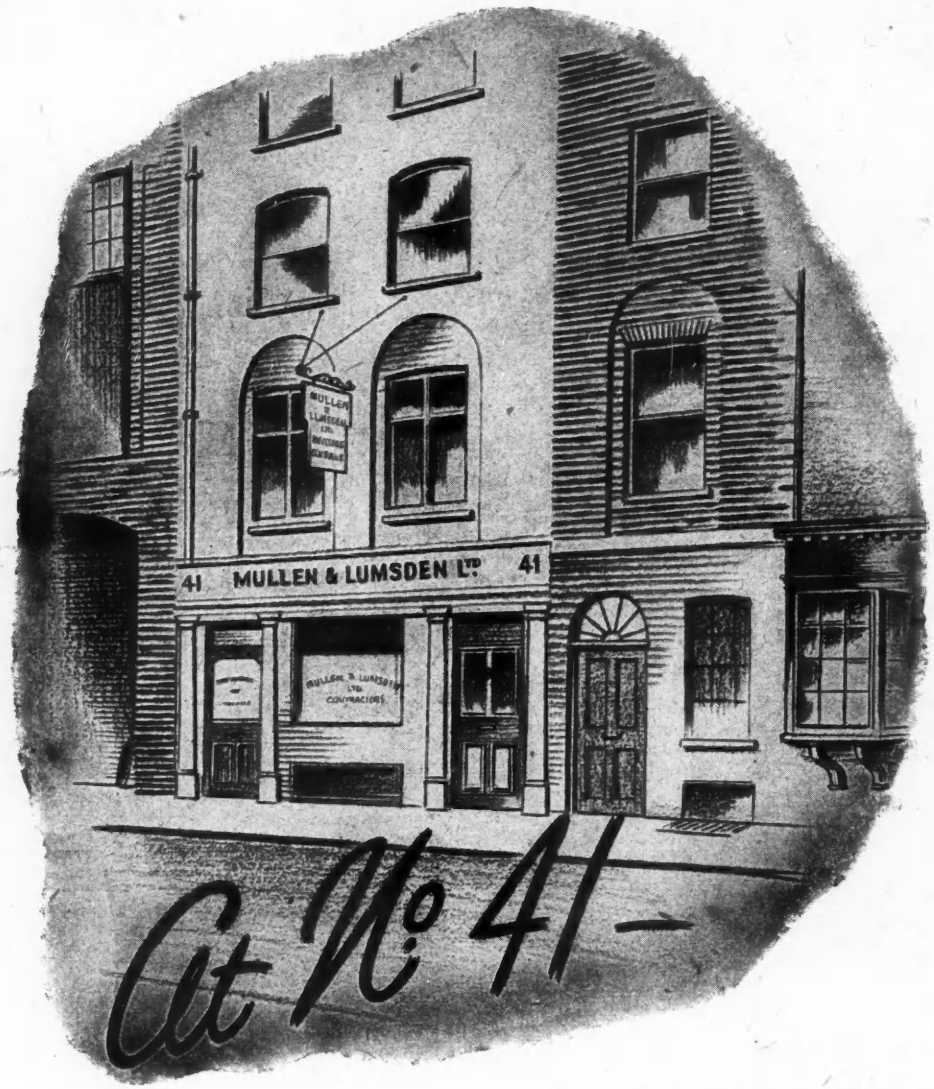
BULL DOG
Floor Clips

ALTRO
Non-slip Treads

REDALON
Cement Retarder

PLASTOLEUM
Plastic Flooring

THE ADAMITE COMPANY LIMITED
Manfield House, Strand
London, W.C.2
Telephone: TEMple Bar 6233



—the home of all that is best in modern building practice.
The accumulated experience of over 60 years' service is at your command.

MULLEN & LUMSDEN Ltd.

Contractors

Nº 41 · EAGLE STREET · HIGH HOLBORN · LONDON · WC1

CHANCERY 7422-3-4

BRANCHES

SOUTHAMPTON:
151, ROMSEY ROAD, SHIRLEY
SOUTHAMPTON 71258

ILFORD:
ST. MARY'S WORKS, CONNAUGHT LANE
ILFORD 1963

JOINERY WORKS:
GRESHAM WORKS, SOUTH NORWOOD
ADDISCOMBE 1264

BRANCHES

BRIGHTON:
16, UPPER LEWES ROAD
BRIGHTON 6694

SMALL WORKS DEPT.:
9, COPTIC STREET, LONDON, W.C.1
MUSEUM 3705

LIMMER AND TRINIDAD STAND (F.112).

CRITTALL MFG. Co. STAND (E.86). By Gordon McKnight, A.R.I.B.A.

DEVELOPMENT COUNCIL (No. 175, Row J) demonstrations will be given on improved jointing methods for lead and lead alloy pipe, and of leadburning as applied to both lead sheet and pipe. A full-scale example of duct plumbing in lead pipe is also shown, similar in design to that used by the L.C.C. for a new block of flats. The example is intended to illustrate the use of a quite small duct which is made possible by the ease with which lead pipe can be bent and deviated. The stand will also include a travelling exhibit demonstrating the main uses of lead sheet and pipe in small houses. This has been specially designed and made to provide an exhibition panel available to technical schools. The stand is designed by Mr. Richard Nickson, M.A., F.R.I.B.A., A.A.Dipl.

At the stand of THE LIMMER AND TRINIDAD LAKE ASPHALT CO. LTD. (No. 112, Row F), accent is on materials used on Government priority contracts such as power stations, housing and export. A series of enlarged photographs depict the activities of the company, including the export of Trinidad Lake Ashpalt to all parts of the world; electrical generating and power station contracts and future research; artificial stone paving, concrete kerbs, fence posts, etc.; white line compositions, bituminous paints and compounds; and adhesives for linoleum and other superimposed floorings.

STEEL SCAFFOLDING CO., LTD. (No. 67, Row D), are exhibiting "Big Ben" tubular steel scaffolding, comprising standard scaffold tubing and drop forged one-piece fittings. Also exhibited are "Big Ben" adjustable steel stands for easy erection of platforms for interior decorating and plastering, and the "Big Ben" self-locking trestles of welded tubular steel construction.

The stand of STRUCTURAL AND MECHANICAL DEVELOPMENT ENGINEERS LIMITED (No. 96, Row E) is mainly constructed of S.M.D.'s own materials and demonstrates the use of aluminium alloy for all roofing and structural purposes, for transportable buildings and in conjunction with foamed concrete for load-bearing wall panels. The S.M.D. transportable bungalow construction is illustrated. This is a special lightweight construction combining complete demountability, high thermal insulation and the permanence of aluminium alloys. The insulation is obtained by sandwiching glass wool blankets between a sheet of aluminium and a sheet of cardboard, A. F. Hare and Partners, A.R.I.B.A., were responsible for the design of the stand.

The tube manipulation service offered by THE TUNGUM SALES COMPANY LTD., showing the special advantages in connection with pre-formed plumbing units, will be the main exhibit on stand No. 307, Row T. A standard plumbing unit incorporating hot and cold water systems which can be readily adapted for orthodox brick-built houses will be on view. A separate section is devoted to "Branda" bathroom fittings, and Tungum Alloy in its various fabricated forms may also be seen.

EQUIPMENT FOR BUILDINGS

A stand at the Building Exhibition is both a display and a meeting ground. These two functions are clearly differentiated at the stand of ASCOT GAS WATER HEATERS, LTD. (No. 252, Row N). One section of the stand, which is designed by Messrs. Arcon, architects, is devoted to the display of the complete range of Ascot instantaneous gas water heaters, and another section, raised at a higher level, provides the meeting ground. The gas water-heater display shows both the appliances and the components from which these appliances are assembled. Special emphasis is, however, laid on a comparative newcomer—the Ascot instantaneous gas boiling water heater. In designing the display, the "typical kitchen" and "typical bathroom" conventions have been discarded in favour of a more compact arrangement, where a miniature room model, located alongside each of the working appliances, lights up as and when the appliance is operated.

THE BRITISH GAS COUNCIL (No. 273, Row P) give a comprehensive idea of the improved services and modern equipment available for homes of all kinds at the present time. A comparison of different methods of heating speaks for itself. In two relief models showing a section through a house, the old inadequate and wasteful fuel system is contrasted with up-to-date smokeless methods. The relation between correct ventilation and heating is illustrated by four types of flue, which are recommended for installation with different types of fixed gas fires and open gas-coke fires.

ENGLISH CLOCK SYSTEMS, LTD., is the industrial branch of Smiths English Clocks, Ltd. They will include on their stand, No. 217, Row K, many forms of timekeeping equipment, ranging from master clock systems and slave clocks for the office and factory to time recorders, process timers, strike and chime mechanisms for church or public towers and industrial timing clocks. One of the outstanding features of the stand is a complete prefabricated tower showing a full set of bells in miniature, with the necessary strike and chime mechanisms. Also in built-up form are the towers associated with churches, town halls, public buildings, schools, each fitted with an external clock. These will give an idea of the various types of fascia which can be chosen for tower clock installation, and how each mechanism can be adapted for either antique church faces or one of the ultra-modern buildings.

MESSRS. B. FINCH AND CO., LTD. (No. 13, Row A), have a sanitary fitting section consisting of a bathroom with white fittings and tiled walls in two colours, designed to show how a decorative arrangement can be produced using standard fittings and a simple form of tile decoration. The central area is devoted to fireplaces, with the accent on convected air warming. An exploded full-size section shows fixing details of such fireplaces installed in both solid and hollow floors. Typical examples of the various types of fireplace surrounds produced by the company are exhibited in conjunction with convector grates, one of

B. FINCH'S STAND (A.13). Arcon, Architects.

ROUND THE BUILDING EXHIBITION

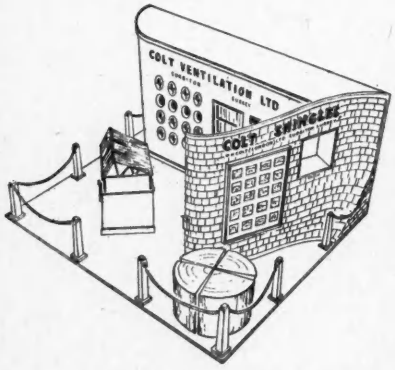
REVIEW OF EXHIBITS—I

The first post-war Building Trades Exhibition opens at Olympia, London, on Wednesday next, November 19. Below we give brief details of some of the exhibits of general interest. Our review will be continued next week.

BRICKS, TILES AND ROOFING MATERIALS

ABBEY TILE CO., LTD. (No. 243, Row M), display "Abbey" fireplaces in glazed mottled tiles and faience. "Abbey" fireplaces are slabbed in a wide variety of colours and designs, and can be made up to architects' or customers' own requirements.

D. ANDERSON AND SON, LTD. (No. 113, Row F), show the full range of "Red Hand" roofing and lining felts and dampcourses. Included are "Bestos" asbestos roofing, which has a mineral base of asbestos fibre saturated and coated with mineral bitumens; "Twinplex" reinforced underslating felt, suitable for fixing direct to rafters; "Sanodor" insulating felt; and dampcourses in various qualities. Another feature of the stand is the various



THE COLT STAND (L.223). Ian Jeffcott, F.R.S.A., and Douglas Dick, F.R.I.B.A., Architects.

roofing systems in which the company specialises, namely, "Thermotile," "Durodek," "Macasfelt," and others, but particularly to be noted is the new "Thermosteel" insulated decking.

ARMSTRONG CORK CO., LTD. (No. 173, Row J), feature "Accotile," a hard-wearing flooring material, being a thermoplastic composition tile made of asbestos fibres, mineral pigments and asphaltic or resinous binders. It can be supplied in a range of plain and marble colours, permitting a wide variety of colour schemes and patterns. Details of the colour range will be sent on request. $\frac{1}{8}$ in. thickness is recommended by the manufacturers for houses, schools, offices and similar buildings; $\frac{3}{16}$ in. thickness is recommended for entrance halls and public spaces subjected to very heavy traffic.

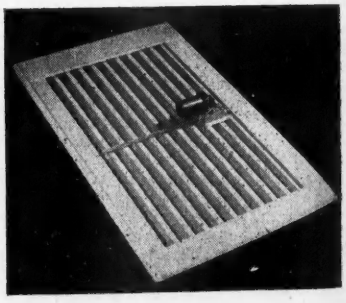
The subject of roofs is the principal theme of the stand of WILLIAM BRIGGS AND SONS, LTD. (No. 32, Row B). Here, in an interesting and informative manner, full constructional details are available for waterproofing and weatherproofing flat, pitched or curved roofs with flexible bitumen materials. A wide array of attractive finishes in green, grey, marble, granite and redstone give a good selection in colour harmony. An interesting exhibit is a new type of metal deck recently evolved by the firm's roofing research staff.

The stand of CARTER & CO., LTD. (No. 74, Row D), was designed by Mr. Keith Murray, F.R.I.B.A., and facilitates comparison between the various materials made by the company. It includes examples of exterior and interior tiling, faience and glazed terra-cotta, enamels and earthenware glazes. Industrial tiling, which is an important part of the company's output, is also featured. Examples of Carter products for decorative purposes are shown by the use of different colours and finishes, moulded relief tiles, slip-outlined lettering and decoration, painted

THE MARLEY STAND (H.164).

tiles and glazed faience mosaic. Floor tiles in a wide variety of colours and sizes are displayed, together with examples of the use of ceramic mosaic, the making and fixing of which have recently been re-commenced by the company.

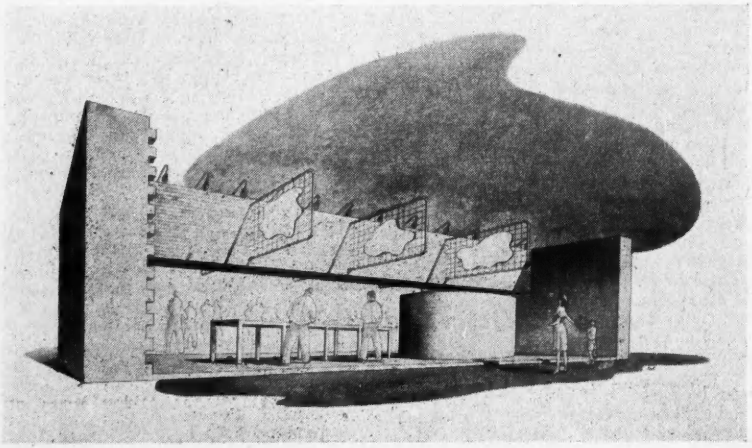
The stand of W. H. COLT (LONDON), LTD. (No. 223, Row L), is an adaption from structure units designed by Mr. Ian Jeffcott, F.R.S.A., and Mr. Douglas Dick, F.R.I.B.A. The exhibit includes the products of the associate company, Colt Ventilation, Ltd., and includes photographs and descriptions of ventilation



THE COLT PR/T EXTRACTOR VENTILATOR. Designed for industrial use and thermostatically controlled. (Stand L.223).

units based upon requirements appertaining to the natural ventilation of buildings, industrial and domestic. Also shown are illustrations of semi-detached cottages for rural workers, roofed with Colt Canadian cedar roofing shingles.

THE EASTWOODS GROUP (No. 163, Row H) displays some of the building materials which the group manufactures and distributes, and is constructed entirely with its products. The ceiling of the stand is carried out in insulating board and suspended by the "Pimco" metal system. The parent company, Eastwoods, Ltd., manufactures all grades of stock bricks, including multi-facings and sand-faced multi-coloured fletton bricks, as well as plain flettons, Portland and "Durocrete" rapid hardening cement, concrete roofing tiles, concrete sewer pipes and other concrete products, and tiled fireplaces, in addition to producing washed and graded aggregates for concrete and large quantities of building sand.



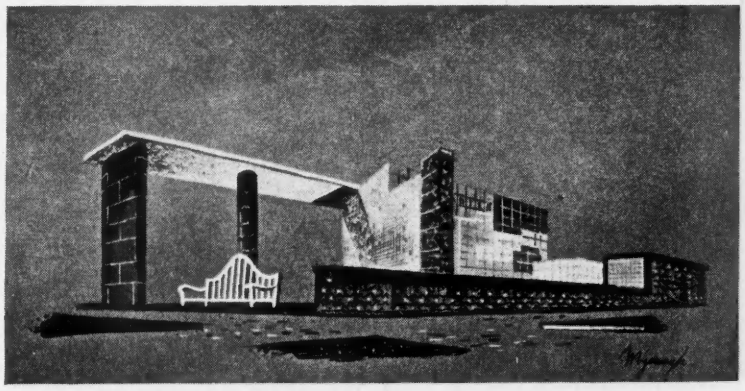
THE LONDON BRICK COMPANY'S STAND (E.87). Richard Nickson, F.R.I.B.A., Architect.

One end of the stand of FISONS, LTD. (No. 184, Row J) is occupied by a specimen wall built of the firm's "Burwell" kiln-fired gault white facings, embodying a complete panel of flushed facing bricks. A model of the firm's brickworks is also shown, which, together with photographs of the actual process employed in making Burwell white bricks, will be of interest to the pupils from the various technical schools visiting the Exhibition.

LANGLEY LONDON, LTD. (No. 90, Row E), feature many interesting models of Langley's range of best-quality clay roofing tiles, which are designed to effect savings in timber, brickwork, labour and money. Also displayed are Langboro' floor tiles in many attractive colours; reinforced and other types of roofing felt; bitumen expansion jointing (self-sealing); bitumen damp-proof course; decorative plastics in the form of bath panels and bath surrounds, and wall panelling and skirting.

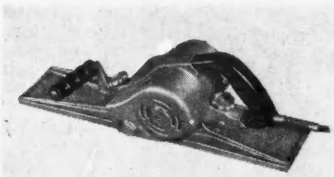
The main feature on the stand of LONDON BRICK CO. (No. 87, Row E) is a hollow, reinforced brick beam built in "Phorpres" common bricks, having a clear span of 37 ft., between two supporting walls, each 12 ft. high by 20 ft. long. The beam carries photographs illustrating the process of manufacture of "Phorpres" bricks, and the supporting walls display the range of clay products manufactured by the company. One of these walls is constructed in "Phorpres" rustic facing bricks, one face being colour washed; "Phorpres" cellular rustics are shown in section. Sand-faced facing bricks of dark and light colour are incorporated in the other wall, the light-colour sand-faced being a new product. Returns to the end of this wall demonstrate partition blocks and the new rug-faced building blocks. Sections projecting from the wall illustrate the use of "Phorpres" hollow clay floor blocks. A selection of standard special bricks are set out on tables on the floor of the stand.

THE MARLEY TILE (HOLDING) CO., LTD. (No. 164, Row H), have as the first portion of their exhibit a traditional oast-house, recalling the Kentish origin of the firm. The oast-house will be tiled with Marley plain sand-faced tiles in antique colour, and the vertical tiling to the end and sides will be carried out in the same tiles. The hand-made bricks are supplied by the High Brooms Brick Co., Ltd. Inside the oast-house is exhibited a floor displaying the new Marley floor tiles, and a demonstration ceiling showing the use of Marlith wood wool slabs as a suspended ceiling, either with exposed decorated finish, or as a base for the normal plastered finish.



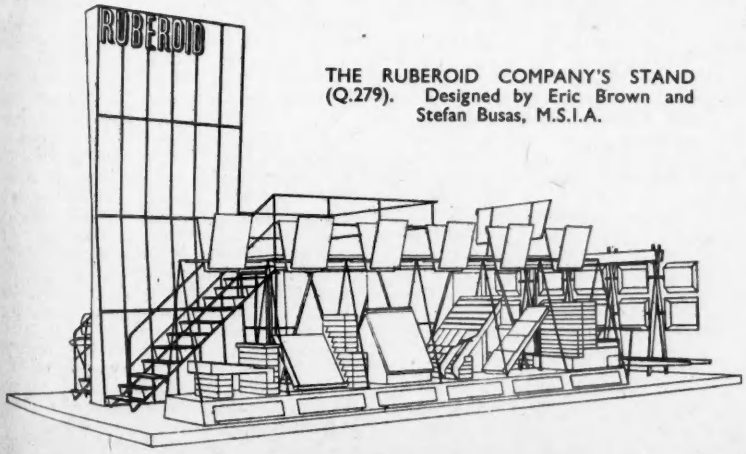
CARTER & CO.'S STAND (D.74). Keith Murray, F.R.I.B.A., Architect.

On Stand No. 279, Row Q, THE RUBEROID CO., LTD., exhibit a wide range of materials and specifications, which include an area of Ruberoid built-up roof laid on concrete; a section of tiled roof, demonstrating the tensile strength of reinforced Zylex slaters' felt, which can be laid across open rafters; an interesting display of the colourful and attractive



THE "TARPLANER" PORTABLE ELECTRIC PLANE (British Equipment Co.'s Stand D.66).

Ruberoid strip slates, twin-butt and octagonal; and a model of Pluvex membrane sheeting, a built-up form of damp-course for waterproofing tunnels, reservoirs and swimming pools. A section of Ruberoid taken from a roof laid nearly 30 years ago offers testimony to the quality of Ruberoid roofing. Attention is also drawn to the Servicing Department, which offers a free inspection and report on existing roofs. A portion of the stand is roofed with Ruberoid steel roof deck.



THE RUBEROID COMPANY'S STAND (Q.279). Designed by Eric Brown and Stefan Busas, M.S.I.A.

BUILDERS' AND CONTRACTORS' PLANT.

A.C.E. MACHINERY, LTD. (No. 259, Row 0), display a representative choice of the "A.C.E." range of power winch units, tower platform hoists, concrete elevating plants and a workman's goods hoist. These include a 4-cwt. lightweight portable plate-sided petrol-driven winch unit for warehouses, sack hoisting and general purpose duty. A 5-cwt. narrow drum petrol driven winch unit fitted with a J.A.P. air-cooled petrol engine for similar duty will be displayed, particularly for the export market.

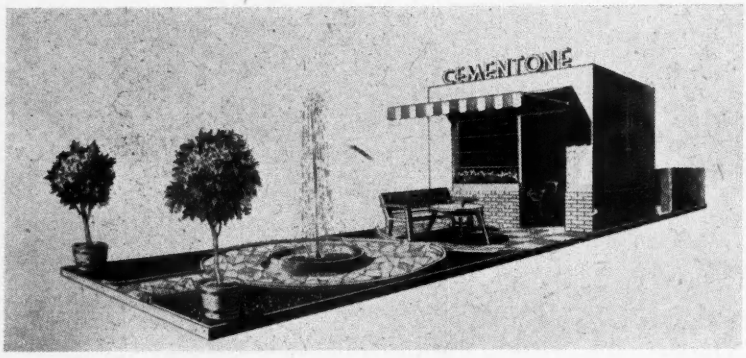
ACROW (ENGINEERS), LTD. (No. 95, Row E), show adjustable steel propping and shuttering for temporarily supporting reinforced floors, beams, walls, columns, etc., during construction. Ferroforms (steel shuttering panels) for temporary centring to floors, walls and columns; adjustable steel props, for supporting temporary shuttering to floors and beams; adjustable steel floorcentres, for shuttering to *in situ* fire-resisting floor construction, whether of the solid concrete or of the hollow brick variety. Also tubular scaffolding, concrete mixers, saw benches and a mobile unit storage system.

E. P. BARRUS, LTD. (No. 138, Row G), display a range of machine and power tools embodying the latest design and principles of well-known makers. There are the Aro pneumatic sanders, polishers, screwdrivers, drills, impact wrenches, etc.; Blackhawk hydraulic pipe benders and industrial maintenance kits; Cleveland high-speed drills, reamers, etc.; Disston band saws, circular saws, both solid and inserted teeth, and a range of Stanley portable electric and hand tools.

Among the exhibits of MESSRS. BLAW-KNOX, LTD. (No. 288, Row R), are the 3½T, the smallest of the Rex range of concrete mixers for small jobs; the Rex 5E trailer mixer, which can be hitched to a lorry and driven at speed to the site; the Rex 7S concrete mixer, powered with either petrol or diesel engine. Blawform shuttering, fabricated entirely of steel, and used for all types of concrete construction, is also shown, together with Blaw-Knox steel roadforms made in 10 ft. sections and coupled together by a rigid lock self-aligning joint plate.

THE BRITISH EQUIPMENT CO., LTD. (No. 66, Row D) show a number of machines, including the Tarplaner, a portable electric plane with a 5/8 h.p. universal electric motor; generators; Skilsaw portable electric tools; Skilsaw saws, ranging in size from a depth of cut in wood of 1½ in. to 4⅜ in; Skilsaw belt sanders; Skilsaw floor sander; and Skilsaw disc sanders.

THE BRITISH HOIST AND CRANE CO., LTD. (No. 60, Row D), exhibit the "Ant"



THE CEMENTONE STAND (Joseph Freeman Sons & Co.), No. C.39.

mobile hoist in two separate forms. The first type of machine deals with heights of 15 ft. and 19 ft. and is geared to deal with 5/7 cwt. platform loads. The second machine is known as the "Queen Ant" model, which provides for lifts of 15 ft., 30 ft. or 45 ft. from ground level; this machine is fitted with the exclusive "Moonraker" rail. Also shown are the "Antelope" barrow and a new builders' hoist.

METAL AGENCIES CO., LTD. (No. 140, Row G), show a Rota-Hoist—for raising bricks or other materials from ground level to any part of a scaffolding; "Macoblok" concrete block-making machine, which is of all-steel welded construction and provides rigidity combined with low weight and ease of handling; and also the "Avon" de-froster, for 200-250 volts (A.C. mains only). This is a neatly packed and assembled device by means of which frozen pipes can be rapidly "defrozen." Up to 100 ft. of pipe can, it is claimed, be thawed out in two to five minutes. The mains lead provided can be connected to a power point or ordinary domestic light socket.

MILLARS' MACHINERY CO., LTD. (No. 239, Row M) display Millars' mobile weight-batching plant, designed to meet the requirements of the average-size contract on which consistent quality concrete is required, mobile 10-NT non-tilting drum concrete mixer, with a capacity of 10 cu. ft. mixed concrete (14 cu. ft. unmixed); drop bottom gauge box, to permit accurate volume proportioning, at low cost, with no extra shovelling or loss of time; 3-in. open discharge diaphragm pump; 3-in. self-priming contractors' centrifugal pump; and 4 ft. 6 in. diameter roller pan mixer.

R. H. NEAL AND CO., LTD. (No. 294, Row R) display the Neal Type "NM" mobile crane (2 tons capacity); Neal Type "G" portable petrol crane (15-cwt. capacity); Neal Type "AM" portable petrol crane (8-cwt. capacity); and Winget/Neal 10/7 "Rapid" mixer (rotary closed drum concrete mixer). The "NM" crane is an example of an up-to-date mobile crane with the following interesting features: (i) Full-circle slewing, with dual roller path; (ii) Diesel power unit; (iii) heavy duty pneumatic tyres; (iv) patent safety hoist unit; (v) two-speed travel both "forward" and "reverse"; (vi) patent instantaneously reversible freewheel differential drive; (vii) all motions independently controlled and independently power-operated.

MESSRS. FREDERICK PARKER, LTD. (No. 270, Row P) have arranged a comprehensive display of their machinery appropriate to the building trade. It shows various models of the "Little Giant" hand-fed concrete mixer, for mixing concrete, tarmacadam, hair-plaster, compo, mortar and plaster; the "Speedia" rollerbearing hopper-fed concrete mixer models; the "Non-Tilt" hopper-fed range of mixers, mounted on two pneumatic tyred wheels for high-speed towing; the Parker "Hoistex" equipment, for express hoisting services to heights of 100 ft. and over; the "Monarch" light stone breaker, for crushing soft sandstone, soft limestone, soft concrete, clinker, blue bricks and materials of equivalent hardness; and the new high-speed trailer "Little Giant" concrete mixer.

SMITH'S FIREPROOF FLOORS, LTD. show the system of floor construction which consists briefly of patent hollow concrete blocks with blind ends, placed in pairs, permitting the use of correctly designed reinforcement in both directions to support all types of loading. (No. 269, Row P.)

MESSRS. TRIANCO, LTD. (No. 269, Row P) take the opportunity to present their concrete product machinery, including the K2 heavy duty full automatic and the G2 hand-operated block-making machines. Periodic demonstrations will be given, and a scale working model of the Trianco elevating, mixing and conveying system will also be seen on the stand. The Trianco paddle-type mixer is the machine which has been specially designed to meet the needs of the concrete product manufacturer, and is for mixing aggregates up to ¾ in. grading. Steel moulds for kerbs, garden edging and fence posts will be shown, and typical examples of concrete products produced on Trianco plant will be available for inspection.

CONSTRUCTIONAL AND METALWORK, CEMENTS, ETC.

THE BRITISH STEELWORK ASSOCIATION'S exhibit (No. 44, Row C) is confined to examples of the use of structural steelwork in buildings and in bridge construction. There are various models, including the B.I.S.F. type "A.1" house, the Brabazon Hangar, and the Barton and Walton Bridge. The range of the industry's work will be indicated by a series of photographs surrounding the canopy.

The COPPER DEVELOPMENT ASSOCIATION stand (No. 278, Row Q) is designed by the Association's Consulting Architect, Mr. A. L. McMullen, M.A., A.R.I.B.A., in copper and copper alloys. Two main semi-circular columns, sheathed with polished copper sheet, and the Association's symbol, consisting of copper tubes welded together, figure largely in the design. The structure below the showcases is panelled with strips of polished copper, gilding metal, brass and nickel silver. The canopy has a ceiling with copper-sprayed panels, with roof lighting, and a fascia of green, edged with brass sections and bearing the Association's name in letters of polished copper. A model of a house illustrates some of the chief uses of copper and its alloys in building.

RICHARD CRITTALL AND COMPANY LIMITED (No. 5, Row A) representing the Richard Crittall group of companies, show an extensive range of engineering services for hospitals, hotels, restaurants, cinemas and other public buildings, showrooms and shops, offices, schools and colleges, flats and private residences. These services include heating, ventilating and air conditioning, hot water services, steam services, boiler house installations, electrical installations, hotel and canteen kitchen and service installations, fire prevention, water purification, swimming baths, laundry installations, hospital sterilizing and anaesthetic services. Radiant heat systems are among the many special features of particular interest operated by steam, hot water or electricity, including the new "Medrae" electric medium temperature radiant warming panels and "Medrae" electric portable radiant warmers.

Emphasising the importance of keeping contracts to time, DURAFENCING, LTD., have transferred their Progress Planning Department to their Stand (No. 141, Row G). This illustrates the control and supervision of their fencing erection service, and visitors are invited to follow the progress of individual contracts. Representative panels of various types of fencing are shown and the actual components are displayed separately to illustrate the quality, structure and strength of the complete fence.

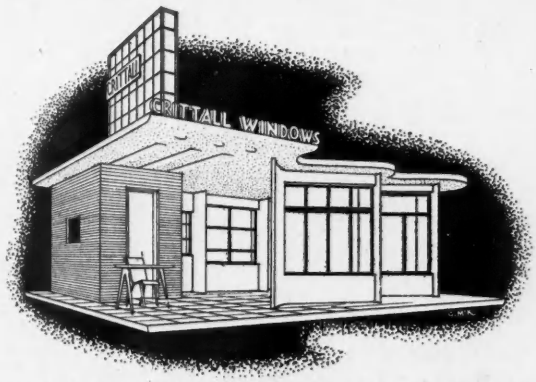
THE FOAMED SLAG PRODUCERS FEDERATION LTD. (No. 158, Row H) demonstrate in a comprehensive and attractive manner five methods of foamed slag concrete construction for external walls: (1) 11-in. cavity wall construction with inner leaf constructed of 18 in. by 9 in. by 4 in. foamed slag slabs; (2) 9-in. wall constructed in 18 in. by 9 in. by 9 in. foamed slag concrete hollow blocks; (3) 8-in. Winget-Cubitt prefabricated cavity walling system; (4) 8-in. cast-in-situ foamed slag concrete wall constructed with patent lightweight shuttering; (5) 8-in. cast-in-situ wall constructed by method requiring no shuttering.

MESSRS. JOSEPH FREEMAN SONS AND CO., LTD. (No. 39, Row C) have erected a section of a house looking out on to a garden. This method of illustrating the firm's materials demonstrates the decorative and protective properties of Cementone products, under actual working conditions. The crazy paving and paving slabs in the garden section are coloured with Cementone No. 1 permanent colours for cement, and architects and builders can see how it is possible to manufacture pre-cast concrete products in a variety of tints. At the rear of the stand, a working demonstration shows how it is possible to waterproof brickwork, etc.

LAFARGE ALUMINOUS CEMENT CO. LTD. (No. 68, Row D) are manufacturers of Ciment Fondu, the British-made aluminous cement. An important feature of this stand is an impressive collection of photographs of various types of works on which Ciment Fondu has been used. Technical representatives of the company are present to explain the reasons for using Ciment Fondu in each case, and to offer advice on the particular properties of this cement for any specific purpose. The fullest data are available in the form of practical exhibits, graphs and literature.

On the stand of LEAD INDUSTRIES

LIMMER AND TRINIDAD STAND (F.112).



CRITTALL MFG. Co. STAND (E.86). By Gordon McKnight, A.R.I.B.A.

DEVELOPMENT COUNCIL (No. 175, Row J) demonstrations will be given on improved jointing methods for lead and lead alloy pipe, and of leadburning as applied to both lead sheet and pipe. A full-scale example of duct plumbing in lead pipe is also shown, similar in design to that used by the L.C.C. for a new block of flats. The example is intended to illustrate the use of a quite small duct which is made possible by the ease with which lead pipe can be bent and deviated. The stand will also include a travelling exhibit demonstrating the main uses of lead sheet and pipe in small houses. This has been specially designed and made to provide an exhibition panel available to technical schools. The stand is designed by Mr. Richard Nickson, M.A., F.R.I.B.A., A.A.Dipl.

At the stand of THE LIMMER AND TRINIDAD LAKE ASPHALT CO. LTD. (No. 112, Row F), accent is on materials used on Government priority contracts such as power stations, housing and export. A series of enlarged photographs depict the activities of the company, including the export of Trinidad Lake Ashpalt to all parts of the world; electrical generating and power station contracts and future research; artificial stone paving, concrete kerbs, fence posts, etc.; white line compositions, bituminous paints and compounds; and adhesives for linoleum and other superimposed floorings.

STEEL SCAFFOLDING CO., LTD. (No. 67, Row D), are exhibiting "Big Ben" tubular steel scaffolding, comprising standard scaffold tubing and drop forged one-piece fittings. Also exhibited are "Big Ben" adjustable steel stands for easy erection of platforms for interior decorating and plastering, and the "Big Ben" self-locking trestles of welded tubular steel construction.

The stand of STRUCTURAL AND MECHANICAL DEVELOPMENT ENGINEERS LIMITED (No. 96, Row E) is mainly constructed of S.M.D.'s own materials and demonstrates the use of aluminium alloy for all roofing and structural purposes, for transportable buildings and in conjunction with foamed concrete for load-bearing wall panels. The S.M.D. transportable bungalow construction is illustrated. This is a special lightweight construction combining complete demountability, high thermal insulation and the permanence of aluminium alloys. The insulation is obtained by sandwiching glass wool blankets between a sheet of aluminium and a sheet of cardboard, A. F. Hare and Partners, A.R.I.B.A., were responsible for the design of the stand.

The tube manipulation service offered by THE TUNGUM SALES COMPANY LTD., showing the special advantages in connection with pre-formed plumbing units, will be the main exhibit on stand No. 307, Row T. A standard plumbing unit incorporating hot and cold water systems which can be readily adapted for orthodox brick-built houses will be on view. A separate section is devoted to "Branda" bathroom fittings, and Tungum Alloy in its various fabricated forms may also be seen.

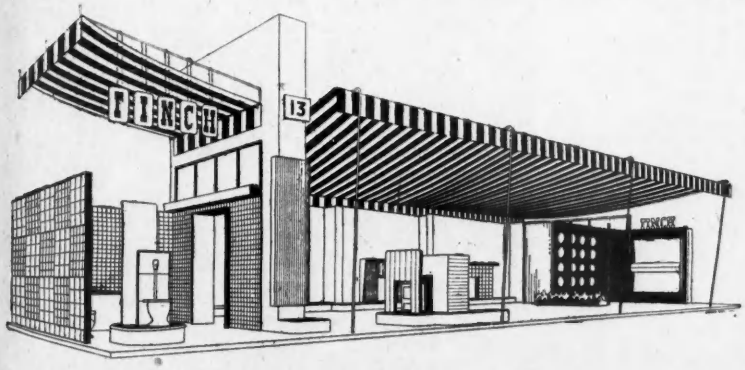
EQUIPMENT FOR BUILDINGS

A stand at the Building Exhibition is both a display and a meeting ground. These two functions are clearly differentiated at the stand of ASCOT GAS WATER HEATERS, LTD. (No. 252, Row N). One section of the stand, which is designed by Messrs. Arcon, architects, is devoted to the display of the complete range of Ascot instantaneous gas water heaters, and another section, raised at a higher level, provides the meeting ground. The gas water-heater display shows both the appliances and the components from which these appliances are assembled. Special emphasis is, however, laid on a comparative newcomer—the Ascot instantaneous gas boiling water heater. In designing the display, the "typical kitchen" and "typical bathroom" conventions have been discarded in favour of a more compact arrangement, where a miniature room model, located alongside each of the working appliances, lights up as and when the appliance is operated.

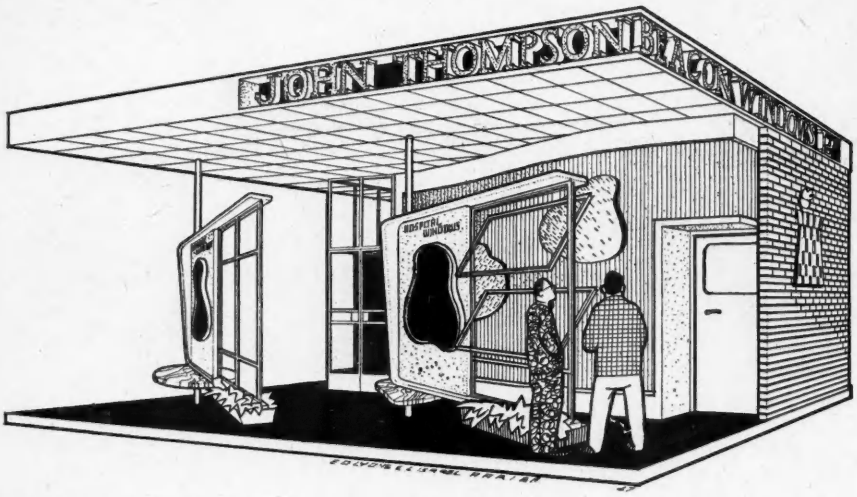
THE BRITISH GAS COUNCIL (No. 273, Row P) give a comprehensive idea of the improved services and modern equipment available for homes of all kinds at the present time. A comparison of different methods of heating speaks for itself. In two relief models showing a section through a house, the old inadequate and wasteful fuel system is contrasted with up-to-date smokeless methods. The relation between correct ventilation and heating is illustrated by four types of flue, which are recommended for installation with different types of fixed gas fires and open gas-coke fires.

ENGLISH CLOCK SYSTEMS, LTD., is the industrial branch of Smiths English Clocks, Ltd. They will include on their stand, No. 217, Row K, many forms of timekeeping equipment, ranging from master clock systems and slave clocks for the office and factory to time recorders, process timers, strike and chime mechanisms for church or public towers and industrial timing clocks. One of the outstanding features of the stand is a complete prefabricated tower showing a full set of bells in miniature, with the necessary strike and chime mechanisms. Also in built-up form are the towers associated with churches, town halls, public buildings, schools, each fitted with an external clock. These will give an idea of the various types of fascia which can be chosen for tower clock installation, and how each mechanism can be adapted for either antique church faces or one of the ultra-modern buildings.

MESSRS. B. FINCH AND CO., LTD. (No. 13, Row A), have a sanitary fitting section consisting of a bathroom with white fittings and tiled walls in two colours, designed to show how a decorative arrangement can be produced using standard fittings and a simple form of tile decoration. The central area is devoted to fireplaces, with the accent on convected air warming. An exploded full-size section shows fixing details of such fireplaces installed in both solid and hollow floors. Typical examples of the various types of fireplace surrounds produced by the company are exhibited in conjunction with convector grates, one of



B. FINCH'S STAND (A.13). Arcon, Architects.



JOHN THOMPSON BEACON WINDOWS' STAND (P.271). Lyons and Israel, AA.R.I.B.A., Architects.

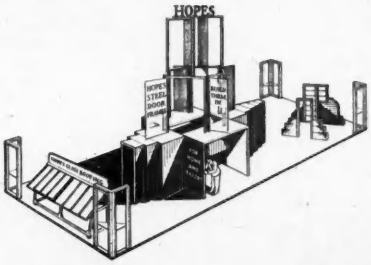
which will be in operation. The stand is designed by Messrs. Arcon, architects.

FISHER AND LUDLOW (No. 148, Row H) are exhibiting their vitreous-enamelled lavatory basin and stainless steel sink. The 22 in. by 16 in. lavatory basin is manufactured from 16-gauge vitreous enamelling steel, to British Standard Specification 1329, 1946. The basin takes standard taps and mounts on standard lavatory basin brackets. Two sizes of stainless steel sinks are manufactured, model "N," 18 in. by 42 in., and model "W," 21 in. by 42 in.; both have a bowl 20 in. by 16½ in. by 8 in. deep, and can be supplied with either a right- or left-hand draining board.

GEORGE W. KING LIMITED (No. 215, Row K) show examples of King tubular sliding door track and fittings fitted to straight sliding, end-hung and centre-hung folding doors. King "Out-of-the-Way" and "Around-the-Corner" system will be demonstrated by King "Major" "Out-of-the-Way" and "Around-the-Corner" sliding door gear, shown fitted to typical garage doors. New developments are "Trantrac" gear for trolley bus garage doors. This is especially designed for openings through which trolley bus wires are required to pass. King "Homestic" gear for sliding internal doors, a new silent gear for domestic interior doors, is also on show.

The outstanding feature of NETTLEFOLD AND SONS' stand (No. 77, Row D) is the "Bescot" locking latch. This is a new development for securing internal doors. The size of the latch is specially suitable for the present-day standard door, and dispenses with the use of a key. It is possible to lock the door from one side, either in or out, simply by raising the lever handle to the vertical position. Also on show is the post-war pattern of the "Bescot" door closer.

T. T. INDUSTRIES, LTD. (No. 63, Row D), show Metile all-steel wall tiles, made in a range of 10 colours; these can be used for interior decoration such as kitchens, halls, bathrooms, and can be fitted by any amateur, as tiling experience is unnecessary. Also a complete range of T.T.I. bathroom fittings in a variety of finishes, such as chromium plate, speculum plate, enamels, copper oxidised, etc., are on view.

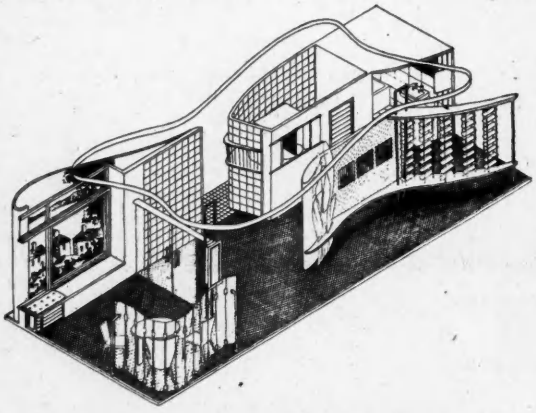


HENRY HOPE & SONS' STAND (D.79).

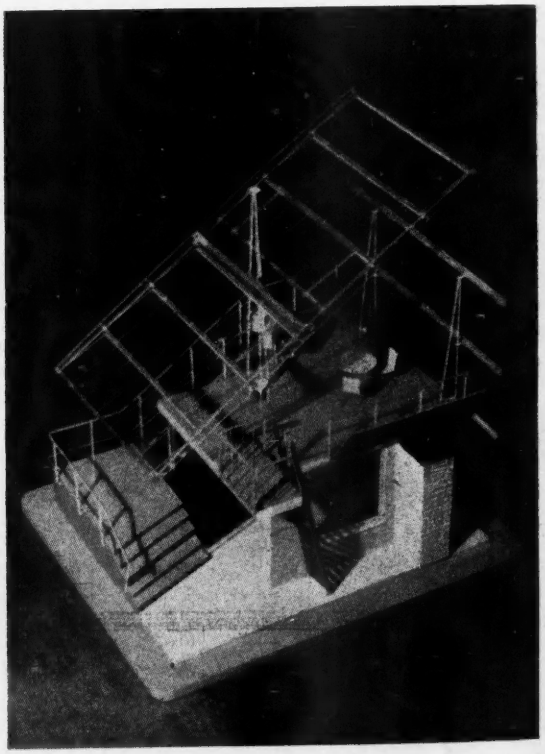
GLASS, GLAZING AND METAL WINDOWS

The stand of FREDERICK BRABY AND CO., LTD. (No. 214, Row K), has been specially designed by H. Courtenay Constantine, F.R.I.B.A., and is a composite exhibit showing the firm's products connected with the building industry. The main structure consists of structural steelwork, incorporating metal windows, metal partitions, doors and dovetail sheeting. The free standing exhibits include copper and zinc roofing, pressed steel stairs, door frames, tanks, cisterns and cylinders, ventilators, gutters and pipes, barrows and rooflights. A special feature is made of the new Bar-form partitions.

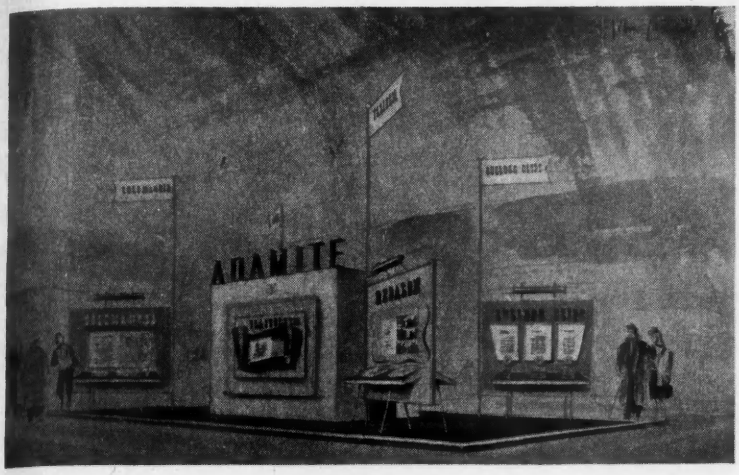
BRITISH PRESSED PANELS, LTD. (No. 145, Row G), of Coventry, exhibit examples of their products which demonstrate the suitability of aluminium for window construction and for doors, etc. Special attention is drawn to the range



PILKINGTON BROTHERS' STAND (G.129).
Kenneth Cheesman, L.R.I.B.A., Architect.



WILLIAMS AND WILLIAMS' STAND (D.72).
Arcon, Architects.



ADAMITE COMPANY'S STAND (E.85). Designed by John Lansdell, N.R.D.

of "Alwintite" double-hung sash, complete with storm sash for insulation purposes, a simple method of double-glazing which can be removed in the summer and replaced by a flyscreen, which is also exhibited.

The stand (No. 86, Row E) of THE CRITTALL MANUFACTURING CO., LTD., has been built from the designs of Mr. Gordon McKnight, A.R.I.B.A. Exhibits have been selected to illustrate Crittall products available now in this country, having regard to current building priorities, and include the following: For housing, typical standard metal windows and French doors with fanlights and sidelights; examples of sub-light windows; a larder window with flyscreen. For schools, hospitals, offices, a typical school window of Crittall universal casement construction, but consisting of standardised units coupled with mullions and transomes. For industrial buildings, Crittall standard industrial sash units form the tower, which is a distinctive feature of the stand. Crittall pressed steel products are represented by a pressed steel flush door complete in standard pressed steel frame, and by a collection of sample section pieces showing all the standard profiles.

The stand of FIBREGLASS, LTD. (No. 229, Row L), for which the architect is Mr. Brian Peake, A.R.I.B.A., contains a pair of model houses. One is the model of a pre-fab set against a background which is an aerial photograph of one of the largest pre-fab estates in the country and in which every house has been insulated with fibreglass. The other model is shown in section and shows in detail the application of fibreglass to a traditional type house with suitably captioned cards giving due emphasis to the important points in house insulation. There are also a working demonstration of heat insulation and a panel showing the build-up of fibreglass materials from the basic raw material. A new range of fibreglass fire-resisting fabrics is also on show.

On the stand of MESSRS. HENRY HOPE AND SONS, LTD. (No. 79, Row D), the exhibits themselves form the actual structure of the stand. The dominating feature is composed entirely of Hope's steel door frames of all sizes built up on a cruciform plan, thus providing four entrances through the stacked door frames and a large central space for use as an office. A special type of steel door frame for export is also shown, as well as all-steel windows and doors for native quarters, etc. Working models of sliding roof lights and electrically controlled continuous opening lights are demonstrated, and other exhibits include a ship's window, a railway signal cabin window and a large window for generating stations.

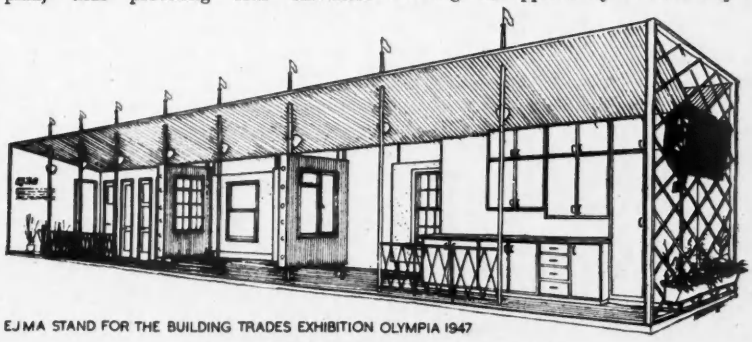
J. A. KING AND CO., LTD. (No. 118, Row F), have a structure of reinforced concrete and glass showing modern methods of natural lighting for buildings of all types. The usual pavement, floor, roof, barrel and lantern lights are shown covering the whole roof of the stand, whilst the glass sides will display several types of "Glascrete" vertical constructions which offer a variety of treatment in the designs of windows, walls, screens, etc. The stand's tower formed of "Glascrete" mullion windows, rises to a height of over 20 ft. and is flanked on either side by tall curved windows, having a closer mullion spacing. This construction can be carried up continuously to any desired height. Other exhibits include "King" concrete blocks and slabs in ballast, clinker and plaster, "King" gas flues and hollow tile floors.

METAL SECTIONS, LTD. (No. 205, Row K), have built their stand of cold rolled metal sections used in the building trade and include metal house framings, skirtings, picture rails, angle beads, cover strips, roof trusses in steel and light alloy, door frames, window trims, floor and ceiling joists, and fireplace surrounds and kerbs. There are also a scale model in metal sections of the British Iron and Steel Federation house, and examples of protective and decorative finishes to metals.

The stand of MESSRS. PILKINGTON BROTHERS, LTD. (No. 129, Row G), is designed to illustrate some of the newer uses of glass and methods of construction. Special features include a standardised "Armourplate" glass door installation, "Insulight" hollow glass blocks, a bathroom designed in "Vitrolite," an "Armourplate" glass display screen of standardised unit construction, and a method of increasing the effective daylighting of shop windows whilst reducing reflection. The stand is designed by Mr. Kenneth Cheesman, L.R.I.B.A.

JOHN THOMPSON BEACON WINDOWS, LTD. (No. 271, Row P), have display panels allowing the opportunity of close inspection and manipulation of two types of purpose-made windows, suitable for installation in hospitals and schools, respectively. A back wall exhibit shows the pleasing effect gained by the insertion of a standard steel window into a pressed metal subframe of all-welded construction. This unit has been designed with the æsthetic aspect kept well in mind, and this, coupled with the strength of the product, makes it an acceptable feature in well-planned homes. Also exhibited are pressed metal door frames and open-type grid flooring. Suitable light pressings for the building trade are also on show. The stand is designed by Messrs. Lyons and Israel, AA.R.I.B.A.

Aluminex glazing for walls and roof is the central theme of the stand of MESSRS. WILLIAMS AND WILLIAMS, LTD. (No. 72, Row D). Aluminex glazing is based on the Aluminex glazing bar which, complete with shoes, stops, flashings, couplings and continuous hinges, forms a complete system for roof and side wall glazing. The stand itself is on two levels, linked by a staircase with cast aluminium treads. The ground level is devoted to reception and to a teleprinter which is connected with the Williams and Williams' Reliance Works at Chester. The upper or terrace



EJMA STAND FOR THE BUILDING TRADES EXHIBITION OLYMPIA 1947

Frederick MacManus, F.R.I.B.A., Architect.

AUSTINS OF EAST HAM'S STAND (R.292).

level contains the Aluminex display. Overhead an inclined canopy of roof glazing—supported by a central lattice mast—stretches over the whole area of the stand. At terrace level there is a large panel of Aluminex side wall glazing and photographs of the Brabazon hangar now nearing completion.

PAINTS, WATERPROOFERS, WOODWORK AND WALLBOARDS

THE ADAMITE COMPANY LIMITED are on Stand No. 85, Row E, designed by Mr. John Lansdell, F.R.S.A., N.R.D. The materials displayed include: "Altro" non-slip plastic treads and tiles, "Bull Dog" floor clips, "Colemanoid" No. 1 liquid integral waterproofer and hardener, "Colemanoid" No. 3 surface hardener, "Ellicem" cement paint, "Plastoleum" floor covering and "Redalon" liquid cement retarder. The new materials are "Altro" non-slip plastic tiles and treads and "Plastoleum," which is a plastic floor covering on hessian backing.

C. F. ANDERSON AND SON LTD. (No. 222, Row L), have a display of insulation, laminated and hard boards, plaster boards and asbestos; also a variety of licence-free boards, including plastics, plain and decorative. The "AnD" Wedge Method of "under-the-purlin" fixing of roof lining is also exhibited.

AUSTINS OF EAST HAM LTD. (No. 292, Row R) have a reception room incorporating a standard EJMA double-hung sash window of the spring-balanced type, and standard casement windows. Externally, three groups of kitchen units have been arranged to show how individual units can be built up into a wide range of alternative designs and to take care of the requirements of any size of kitchen.

BRYCE WHITE AND CO., LTD. (No. 82, Row E), in designing and erecting their stand, have endeavoured to show as comprehensive a range of Brycite products as space will allow. A representative display of doors for interior and exterior use includes examples made to British specification in addition to the Brycite stock designs. Flush, oak and garage doors are also featured. An important part of this firm's activities is the production of all types of mouldings and a large number of designs are displayed.

The stand designed by Arcon Architects, for CELOTEX, LTD. (No. 172, Row H), shows Celotex in its various forms as employed for thermal insulation, interior finishing, acoustical work, and, in the form of hardboard, for a wide variety of industrial uses. As such, the stand, except for a limited amount of structural work, is built entirely of Celotex materials and affords demonstration of their structural and decorative uses. The accent, however, is on thermal insulation, the central and main feature illustrating the part played by Celotex in the industrial and domestic fuel saving campaign.

FERGUSON EDWARDS, LTD. (No. 250, Row N), have a stand circular in shape and subdivided into typical rooms in which are shown the firm's standard decorative materials which are in everyday use, handicapped by application to the surfaces of an exhibition stand. In this manner the firm acknowledges the adverse conditions in which the builder and decorator find themselves to-day, yet demonstrates that good-quality materials allied to craftsmanship can do much to overcome these present difficulties. The exhibit will show a restful lounge treated in "Edotex," a plastic texture paint, and a bedroom shows the artistically subtle effects of form and colour obtainable with "Novodec" scumbling glaze, a new material.

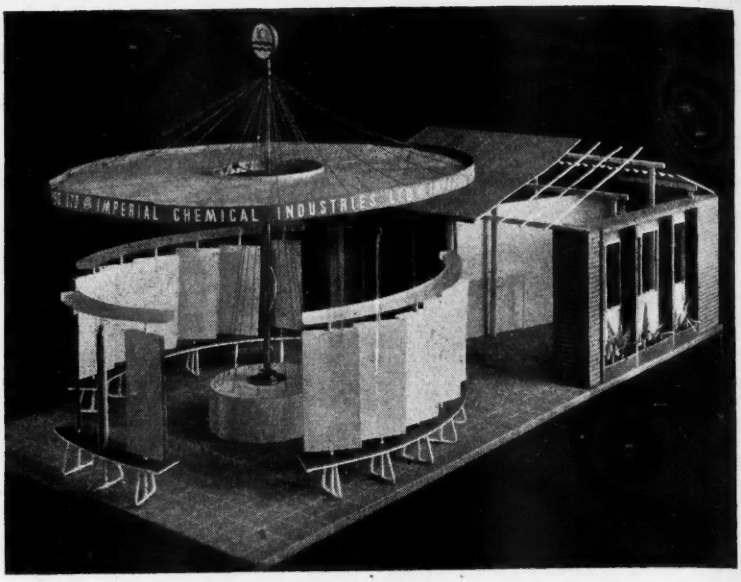
THE ENGLISH JOINERY MANUFACTURERS' ASSOCIATION'S Stands (Nos. 299 and 300, Row S) display typical examples from the EJMA range of standard joinery. The Association does not manufacture or sell joinery. It conducts research into and development of new and improved types of standard joinery and methods of manufacture. EJMA joinery can only be made by licensed producers who undertake to conform to the appropriate EJMA specifications. Exhibits include: casement windows, sash windows (weight-balanced and spring-balanced types), flush and panelled doors, kitchen units, double glazed windows and stairs.

FLEXO PLYWOOD INDUSTRIES, LTD. (No. 245, Row N), exhibit "Flexoply," a reliable waterproof plywood forming the basis of wall panelling and faces of flush doors and other products. Wall panelling is supplied faced with natural decorative veneer, anodised aluminium, Warerite, etc. "Flexometal," consisting of plywood of all types and thicknesses faced with a variety of sheet metal such as stainless steel, aluminium copper, monel metal, anodised aluminium, bronze, galvanised steel, is also on view. "Flexometal," it is claimed, may be faced on one or both sides and can be produced to almost any contour and with sealed edges in a variety of ways to suit the purpose.

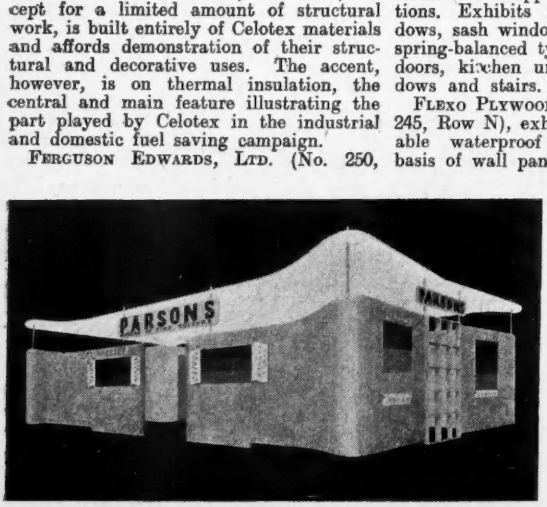
MESSRS. N. GERVER (No. 308, Row T) exhibit a variety of unrestricted wallboards, in thicknesses from $\frac{1}{16}$ in. to $\frac{3}{4}$ in., showing a wide range of alternative finishes. The "Gerwood" Compolite board is also part of the exhibit, together with some ultra-modern designs in interior plastic fitments. The emphasis is on material available with little or no restriction, and immediate delivery.

"From the foundation to the roof" would be a fitting title for IMPERIAL CHEMICAL INDUSTRIES' stand (No. 76, Row D), which has been designed to show how the products of the company's manufacturing divisions contribute to practically every stage of building. Explosives, lime cements, concrete additives, gypsum plaster board, plasters, paints and distempers, plastics and leathercloths will all have their respective places in a series of display panels forming a main feature of the stand. The latest techniques in the application of these materials are demonstrated by means of actual examples, photographs, data sheets or diagrams. These will also show the part played by the Technical Service Departments advising on the use of I.C.I.'s building products. Other displays, demonstrating the use of light alloys, will indicate the diverse uses of the materials of I.C.I.'s Metals Division.

Stand No. 301, Row S, of JENSON AND NICHOLSON, LTD., demonstrates in a practical manner the use of Robbialac paints, varnishes, distemper, etc., for all decorative purposes. A selection of the company's finishes and the complete processes are shown, applied step by step to a number of building materials now in general use by the trade. Stand 302 features the Cuprinol range of wood preservatives. For the preservation of sound



IMPERIAL CHEMICAL INDUSTRIES' STAND (D.76). Arcon, Architects.



THOMAS PARSONS' STAND (F.117).

timber Standard Cuprinol Timber Grade is recommended, and grades are also available for the treatment of timber already attacked by boring beetles or dry rot. All grades can be applied by brush, spray or immersion, and when dry can be painted, polished or varnished over.

THOS. PARSONS AND SONS, LTD. (No. 117, Row F), show examples of the finishes produced by the following enamels, paints, etc.: "Endelline" enamel for interior and exterior use, producing a porcelain-like finish; "Endelflat" enamel for interior use, producing a soft, almost dead flat finish of a washable character and Parsons' gloss paint, a durable paint with an enamel-like surface. Other materials include: "Unicote" flat oil paint, "Parso-Glaze" for broken colour effects, "Parlyte" water paint, etc.

(To be continued)

HOUSING CONTRACTS

ADJUSTMENT BY LOCAL AUTHORITIES

[From a Correspondent]

A CORRESPONDENT writes: Builders should keep a watchful eye on the latest circular issued by the Ministry of Health, which gives suggestions for completing as soon as possible the 350,000 permanent houses now under construction or under contract. This contains, in carefully chosen Civil Service language, a proposal for adjusting, or even cancelling, housing contracts signed by local authorities.

This is the background of the proposal. In Mr. Bevan's office at the Ministry of Health there is a large map with flags showing the rate of progress in various parts of England and Wales. In some districts there are gaps where contracts were signed in 1946, and where in November, 1947, not a brick has been laid. From the Whitehall point of view it is easy to blame the contractor, and to decide that he must give up his contract and have it transferred to some other contractor who has shown his efficiency by completing some other job. But from the contractor's point of view such a drastic action might well mean grave injustice. He might have been only too ready to proceed, but was checked by the local housing committee changing its mind about the plans, either on orders from the Regional Committee or because of local differences of opinion. Or the contractor may have found it impossible to obtain sufficient supplies of material. From the legal point of view, any alteration in a contract presents many difficulties, especially if a contractor refuses to budge unless he is given adequate compensation for losing a contract on which he has already spent money on overhead charges in the hope of a reasonable profit.

Builders would be wise to study the exact wording of the new circular. This suggests to local authorities that they should "review their existing contracts, ascertain causes of delay, and probe them thoroughly." It goes on to propose that "where the progress made is not calculated to enable completion within a reasonable time, arrangements for adjustment to a reasonable level should be sought by agreement with a contractor. Contractors in such cases may be expected to agree, in the light of experience gained, that it would be in their best interests to concentrate resources on such portion of the original contract as they can carry out."

It will be noted that there is no mention of the possibility of compensation. Clearly contractors who have experienced difficulties in starting their contracts must now expect to be approached by the housing authorities, and in some cases will be asked to give up portions of the original contract.

HOUSING PROGRESS REPORT

RETURNS FOR SEPTEMBER

THE monthly Housing Progress Reports presented to Parliament as White Papers* by the Minister of Health and the Secretary of State for Scotland show that the number of permanent houses completed in Great Britain during September was 14,203. This compares with 11,259 in August, and is the highest monthly total since the Returns started in January, 1946. The previous highest figure was 12,426 in July last. The number of temporary houses finished in September was 3,405, compared with 3,058 for August. The total of completed houses, permanent and temporary, is now 276,150. During September homes were provided by new building, repair of uninhabitable houses, conversion and requisitioning for 21,313 families, compared with 17,948 in August and 21,222 in July.

The position in Great Britain at September 30 was as follows :—

ALL HOUSES (Permanent and temporary, local authority and private enterprise).

	Total at September 30	*Increase or decrease on August 31.*	*August increase or decrease on July*
Houses completed—			
Permanent 149,475; Temporary 126,675	276,150	17,608	14,317
Houses under Construction—			
Permanent 259,979; Temporary 7,121	267,100	4,659	7,025
Houses projected but not begun—			
Permanent 92,743; Temporary 25,494	118,237	— 14,614	—9,885
Total Built, Building and Projected—			
Permanent 502,197; Temporary 159,290	661,487	7,653	11,457
Total number of Families Housed—			
By new building, repair of uninhabitable houses, conversion, and requisitioning	492,550	21,313	17,948

BUILDING MATERIALS: Production figures during September include:—

	September.	*August.*	*July.*	*June.*
Cement (1,000 tons)	628‡	613‡	787†	586‡
Plasterboard (1,000 sq. yds.)	3,477‡	3,141‡	3,776†	3,364‡
Drain pipes, salt glazed (1,000 tons)	45.3	37.7	44.5	42.2
Bricks (millions)	438	371	411	400
Plaster gypsous (1,000 tons)	15.9	15.4	18.4	15.8

PERMANENT HOUSES: Division between local authorities, private enterprise and Housing Associations—(Great Britain)

	Houses completed at Sept. 30.	*Inc. on August 31.*	*August inc. on July.*	*Houses under construction at Sept. 30.*	*Inc or dec. on August 31.*	*August inc or dec. on July.*
Local Authority§	81,983	10,337	7,671	213,566	5,015	6,837
Private Enterprise	51,683	2,439	2,357	26,408	— 944	138
Housing Associations	640	71	140	1,477	60	206
Government Departments	413	84	56	2,203	132	— 16
War Destroyed Houses Rebuilt—						
Local Authorities	5,114	298	251	3,061	— 208	—184
Private Builders	9,642	974	784	13,264	18	11
Total	149,475	14,203	11,259	259,979	4,073	6,992

HOUSING LABOUR FORCE.

The total labour force employed on the construction or repair of houses in Great Britain fell during September from 556,300 to 552,600. There were 257,000 men engaged on the construction of permanent houses and preparation of housing sites compared with 255,600 at the end of August, and 11,300 on erection of temporary houses, compared with 11,400 at the end of August. The number on war damage repairs dropped from 96,000 to 91,000.

Note.—A new system of return of the number of employees in the building and civil engineering industries has now been instituted by the Ministry of Works. In view of the change in the basis of collecting the data, and of the possible incompleteness of the new return, comparisons of the numbers engaged on new housing at end of January and at end of September respectively, might be misleading.

SUMMARY OF HOUSING PROGRESS REPORTS.

	England and Wales.		*Scotland.*		*Great Britain.*	
	Sept. 30.	*Aug. 31.*	*Sept. 30.*	*Aug. 31.*	*Sept. 30.*	*Aug. 31.*
Completed Houses—						
Permanent	136,278	123,081	13,197	12,191	149,475	135,272
Temporary	105,809	103,507	20,866	19,763	126,675	123,270
Total	242,087	226,588	34,063	31,954	276,150	258,542
Under Construction—						
Permanent	216,988	214,369	42,991	41,537	259,979	255,906
Temporary	4,507	4,205	2,614	2,330	7,121	6,535
Total	221,495	218,574	45,605	43,867	267,100	262,441
Tenders Approved (*a*) (Local Authorities)	303,440	297,991	62,698	62,624	366,138	360,615
Licences Issued (*a*) (Private builders)	81,172	80,611	4,412(*b*)	4,332(*b*)	85,584	84,943
Families Rehoused	452,814	433,727	39,736	37,510	492,550	471,237
Housing Labour Force (*c*)	495,800	499,500	56,800	56,800	552,600	556,300

(*a*) Includes houses under construction and houses completed.

(*b*) Only includes houses covered by licences issued by local authorities on behalf of the Ministry of Works as from August 1, 1945.

(*c*) Does not include German prisoners engaged on preparation of sites.

* Cmd. 7242 Housing Return for England and Wales, September 30, 1947. H.M. Stationery Office, post-free 10d.

* Cmd. 7243 Housing Return for Scotland, September 30, 1947. H.M. Stationery Office, post-free 4d.

† 5-week period.

‡ 4-week period.

§In Scotland, includes houses built or being built by Scottish Special Housing Association

MATERIALS AND COMPONENTS FOR HOUSING

BRITISH STANDARDS HANDBOOK NO. 3

THE original edition of the British Standards Handbook was issued in 1944 and was followed in 1945 by a Supplement. These original editions were prepared as a supplement to the Housing Manual then recently issued by H.M. Government. The 1947 edition contains summaries of 240 British Standards selected from those applicable to the field of building as being those of most direct interest to those associated with housing. It will, however, also serve as a very useful general guide to British Standards in the building field.

The summaries in the new edition have been completely revised and the volume brought up to date by the addition of a number of new British Standards and by the substitution of summaries of those Standards which have been revised since the earlier edition of the handbook.

Reference to the classified index on pages 579 to 586 will show that British Standards are now available covering the majority of the materials, components and appliances needed for housing especially when normal types of construction are used. The Standards are arranged in numerical order in the handbook as this has been found the most easy method for reference.

To assist the reference three separate indices are provided. Firstly, in a form in which the references are grouped under headings of types of material and trades. Secondly, in numerical order and, lastly, a subject index occupying 11 pages. It is hoped that by means of these ample and detailed indices the user will have no difficulty in finding the specification for the particular item to which reference is desired.

The contents of the handbook were correct at December 31, 1946, but unfortunately, owing to the times there has been considerable delay between the completion of the manuscript and publication. During these many months, revisions have been and are continuing to take place; consequently, where revision work was in hand when the manuscript was prepared, the Standard is marked "under revision." An inset leaflet is issued with the handbook in an endeavour to bring the information up to date, as nearly as possible. This leaflet lists the changes which have been made and it is proposed that it should be revised frequently so that purchasers of the handbook will be kept abreast of the changes. It will be appreciated that it is difficult to keep any publication of this nature completely correct for more than a few days, and users are advised to obtain copies of the Monthly Information Sheet issued by the Institution to its members free of charge.

The summaries are intended to give that part of the information contained in each British Standard which is necessary for the day-to-day reference of the ordinary user, such as architects and builders, and, consequently, the various tests, selection of test pieces and the general procedure for testing are omitted. Thus, if it is desired to place a contract or carry out full inspection of articles purchased in accordance with a specification, it is essential that the British Standard itself be consulted. It will be understood that to summarise the clauses relating to tests and testing is almost impossible as they are already written as briefly as possible and any reduction in words would make them valueless.

Copies of this handbook are available from the British Standards Institution, 24, Victoria-street, London, S.W.1., price £1 1s., post free.

LAW REPORTS

TENANTS' CLAIM UNDER LANDLORD AND TENANT ACT, 1927, FOR NEW LEASE

COURT OF APPEAL.

Before LORDS JUSTICES SCOTT, ASQUITH and EVERSHED.

H. Morell and Sons, Ltd., v. Canter.

In this case, which raised a question of considerable importance under the Landlord and Tenant Act, 1927, the plaintiffs, Messrs. H. Morell and Sons, Ltd., moulding merchants, of Monmouth-street, London, W.C., appealed from a decision of Judge Drucquer in the Westminster County Court refusing to grant the appellants an order for a new lease of the back part of their premises.

It appeared that the appellants carried on business as manufacturers and importers of picture frames and mouldings, etc., and used the back part of their premises as a warehouse and storeroom. The rear part of the premises were held under a lease from the landlord, the defendant, which expired in June, 1943, but which the appellants continued to hold and occupy after that date as tenants from year to year. In June, 1946, the tenancy of that part of the premises was terminated by the landlord serving the appellants with notice to quit. The shop or front part of the premises were held by the appellants under another lease from the landlord and that lease had not yet expired.

The appellants brought the present action in the County Court, claiming in the circumstances to have the right under the provisions of the Act of 1927 to a new lease of the back part of the premises upon the ground that the business as a whole had acquired a goodwill which had the effect of enhancing the letting value of the back part taken alone.

The County Court Judge, holding that the appellants had shown no ground for having an order for a new lease, dismissed the action, and from this result the tenants now appealed.

At the conclusion of the arguments for the appellants and without calling upon counsel for the respondent the Court dismissed the appeal.

Lord Justice Scott, in the course of delivering judgment, said that what the appellants really claimed in this case was a new lease and not only compensation. As the Landlord and Tenant Act, 1927, was one which interfered with the freedom of contract it had to be construed strictly. The premises in which the appellants carried on business consisted of a front part, through which the public entered, and a back part, which the appellants used as a warehouse and storeroom and was essentially a warehouse. There could be no doubt that the letting value of the whole of these premises had increased beyond the sum payable by the appellants for rent owing to a general rise in property values in that district quite irrespective of goodwill. It was conceded that there was an additional increase in value owing to goodwill of the business as a whole; but no part of the goodwill attached to the back part of the premises as such. There was no ground for saying that goodwill could be apportioned under the provisions of the Act of 1927, where there were different sets of premises. In his (the Lord Justice's) opinion, the County Court Judge had rightly held that no goodwill attached to the back part of the premises as such and that there was no increase in value to the landlord. The appeal failed and would be dismissed with costs.

The other members of the Court concurred and the appeal was accordingly dismissed with costs.

Mr. F. W. Beney, K.C., and Mr. H. Heathcote Williams appeared for the appellants; and Mr. Holroyd Pearce, K.C., and Mr. J. W. Russell for the respondent landlord.

WOOD WORKING MACHINE ACCIDENT: IMPORTANT JUDGMENT

KING'S BENCH DIVISION.

Before MR. JUSTICE CASSELS.

Beauchamp v. L.C.C.

In the King's Bench Division of the High Court on November 5, Mr. Justice Cassels gave an important judgment on an infant's claim for damages under the Workmen's Compensation Act.

The action was by a lad named Beauchamp, against the London County Council, for injuries he received whilst working an overhand planing machine.

On March 16, 1944, plaintiff, who was then 16 years of age, was attending as a pupil at the Arts and Crafts school, Hammersmith, premises belonging to the defendants, when he lost a finger whilst working the machine. Plaintiff was an employee of the London Transport Board and part of his training was to attend on two afternoons a week at the defendants' school.

Defendants denied negligence and pleaded contributory negligence on the part of the plaintiff, which was denied.

The point raised in the case was whether an infant, having accepted workmen's compensation by Section 30 of the Workmen's Compensation Act, 1925, was barred from bringing an action at common law.

His lordship said in his view on the facts of the present case the plaintiff knew nothing of workmen's compensation or his rights at common law, and it was not for his benefit to receive compensation and forgo his claim against the defendants, and, therefore, he was not barred by Section 30 from receiving from the defendants damages for his injury. He awarded the plaintiff £513.

Judgment was entered accordingly, with costs.

TIMBER DELEGATION'S CANADIAN VISIT

MR. BRYAN LATHAM, leader of the United Kingdom Timber Delegation to British Columbia, spoke recently about the successful tour of 40 representative importers who, as guests of the Provincial Government, spent six weeks in British Columbia and other Canadian Provinces inspecting timber resources and methods of production. Mr. Latham said they inspected logging operations, sawmills, planing mills, cedar shingle mills, plywood factories, box shook mills, joinery works, pulp mills, wall and fibre board plants, and pressure creosoting plants.

There appeared to be ample supplies of suitable timber available, and hemlock was available in very large quantities and should be suitable for the United Kingdom market provided it was shipped in a dry condition. This important point seemed to be receiving special attention.

It was reasonable to suppose, he said, that in future the proportion of hemlock, cedar and possibly balsam was likely to increase, as in many cases felling was being done at higher altitudes, and under these circumstances the percentage of Douglas fir tended to decrease. In Eastern Canada, supplies of yellow pine appeared to be diminishing. Mr. Latham spoke enthusiastically of the eagerness of the Canadians to increase their trade with Great Britain. The delegation felt that on a long-term basis sufficient supplies of Canadian lumber would not be forthcoming for the United Kingdom market unless exports from the United Kingdom to Canada could be increased.

TECHNICALIA

Modern Building Materials. By M. A. Shute, F.R.I.B.A., M.I.Struct.E. (London: Sir Isaac Pitman and Sons.) Price 18s.

This is a book that can be well recommended to anyone taking up building as a career, and especially to young architects about to take their intermediate and final examinations. Not only are the basic materials covered, but the newer materials, such as structural steel and concrete, metal alloys, asbestos, wood and fibre sheets, and bituminous products, are fully described. Of special interest is the attention paid to the strength of materials, which in itself makes this book invaluable for a student's library.

Surveying for Young Engineers. By S. Wright Perrott. (London: Chapman and Hall.) Price 10s. 6d.

A concise and clear treatise of surveying, giving practical assistance of real value to the young and inexperienced surveyor. Field work is described down to the smallest detail, instruments and their uses are dealt with in such a way that leaves the reader in no doubt as to their uses, and unlike some works of a similar nature, this book concentrates on the practical requirements in preference to the academic side.

Brick Structures. By Ralph P. Stoddard. (McGraw-Hill Publishing Co., Ltd.) Price 10s.

This new edition has been carefully revised and brought up to date. Any builder or master bricklayer wishing to study the methods of building brick structures in the U.S.A. will find this book useful.

Geometry of Construction. By T. B. Nichols and Norman Keep, F.R.I.B.A. (Cleaver-Hume Press, Ltd.) Price 7s. 6d.

This book, as the publishers claim, is not only a textbook but a minor work of reference. The drawings are delightful and self-explanatory. Every student of building and architecture will find this book of value not only at the beginning of their careers but all the way during their studies, and even after they have qualified.

Mensuration and Measuring. By T. Baker. (London: The Technical Press, Ltd.) Price 6s.

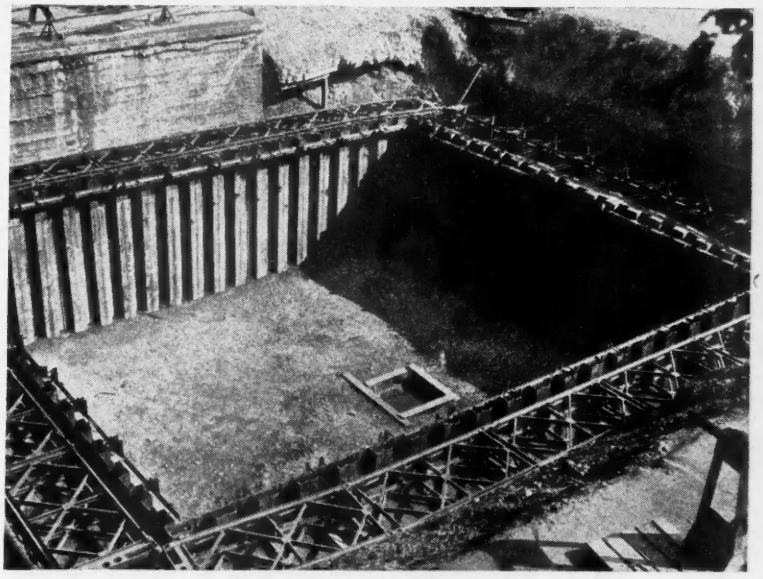
A useful textbook for students entering the building trade. The examples are well chosen and easily followed, and include not only Practical Geometry and Mensuration of Lines, Surfaces and Solids, but also examples of a practical nature for all trades, along with a useful section upon Land Surveying.

Sanitation, Drainage and Water Supply. By G. Eric Mitchell. (London: George Newnes, Ltd.) Price 12s. 6d.

The second edition of this comprehensive work contains much information of general interest, diagrams and technical data for reference use.

The Builder's Materials. By Newman Tate. (London: Chapman and Hall, Ltd.) Price 15s.

An interesting and easily readable book on a very interesting subject. It is well illustrated with diagrams which explain in a simple manner the manufacture and properties of the various materials. This book should be of great use to the student interested in Specification and the properties and Uses of Building Materials, also as a work of reference to the builder and engineer.

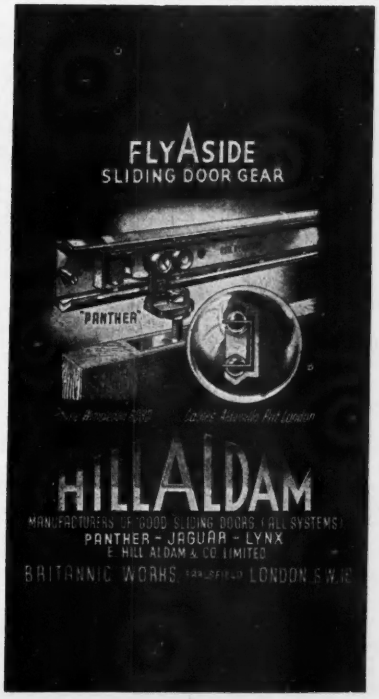


View showing Bailey Bridge sections supporting the sheet piling.

Building and Public Works Administration, Estimating and Costing. By Spence Geddes, E.S. Diplomate, R.T.C. Glasgow. (London: George Newnes, Ltd.) Price 25s.

This comprehensive work should be accessible to every civil engineer, surveyor, building contractor and student interested in administration. The work is laid out under the various trade sections and includes valuable tables of data, also tables for use in estimating the cost of work. The information contained covers the work in the office and on the site, and gives the young engineer and surveyor a workable knowledge of overhead charges, costing, etc., information which previously was difficult to obtain through the medium of a book.

D. A. F.



BOILER HOUSE AT BUCKINGHAM PALACE

THE BAILEY BRIDGE APPLIED TO BUILDING CONSTRUCTION

When Messrs. Higgs and Hill, Ltd., carrying out recently the first part of their contract for the construction of the new boiler house at Buckingham Palace, were confronted with a problem by the lack of sufficient die-square and the impossibility of obtaining it, they used Bailey bridge sections successfully instead.

The portion of the contract referred to above consisted of sheet steel piling and excavation. The excavation measures 54 ft. by 49 ft. by 26 ft. deep, and it was intended that the sheet piling should be supported by timber walings, puncheons and struts. When it was found that stocks of suitable die-square were insufficient, a meeting was called by the Ministry of Works, and Mr. R. C. Westbrook, of the Engineering division, and Mr. A. C. Herne, of the Architect's Division, both of whom had served in the Royal Engineers during the war, suggested that Bailey Bridge sections should be laid flat behind the piling to tie it back. A running length of R.S.J.s was used as a waling just below the top of the piles, held back to the Bailey bridge sections by $\frac{7}{8}$-in. bolts and angle-iron cleats.

During the excavation the bolts were tightened up to ensure that the girders were taking the full load at the top of the piling. First, preliminary excavation to a depth of 13 ft., with battered sides, was carried out, and the pile-driving started at the reduced level in order to minimise the effect of vibration on the adjacent buildings. The steel piles are 26 ft. long, and were driven by steam hammer well into the blue clay, the top of the piles finishing at 11 ft. below the original ground level.

As can be seen from the illustration, the absence of strutting leaves a clear working space which enabled the excavation to be done by drag line, and has also facilitated the concreting of the floor and retaining walls. The new boiler house at the Palace will eventually contain modern oil-burning plant supplying central heating and hot water to the Palace.

ELECTRICITY ON BUILDING SITES

ADVANTAGES OF EARLY INSTALLATION

By F. Geoffrey Marshall, A.M.I.E.E.

In the majority of cases an ample supply of electricity is not made available on a housing estate until all erection work is completed. The supply is provided to meet the requirements of the occupiers of the houses when they move in, but not, as a rule, for the use of the builders in the initial stages, or during the progress of their work.

By providing a plentiful supply of electricity for both power and light on the site before building operations seriously commence, the work of construction can be considerably accelerated. A supply of water is necessary at an early stage in the building work, and the question of electricity should receive similar attention.

The uses to which electricity can be put during construction are, of course, innumerable, and go far beyond that of providing illumination in corners, and occasionally after dark when overtime is being worked, or during the winter months.

There are numerous instances where an electric reamer, chisel, or buffing machine would be of great advantage, were it available, while, in the field of heavier, power-operated machinery, mortar-mixers and simple light vertical hoists for bricks and builders' materials can especially be mentioned.

It is therefore obvious that from the initial planning of any future large housing estate, and throughout the whole job, there must be close collaboration between the building contractor and the local electricity supply authority so that the network of mains initially provided can be absorbed, as far as is possible, into the final electrical layout. There will of necessity have to be a fair amount of temporary installations put in, but these, with the aid of sound planning and foresight, can be kept to a minimum.

Basis of Final Scheme.

A three-phase power supply will therefore have to be brought to a number of key building points on the estate for feeding the heavier motors, and these cables can be installed permanently to form the basis of the final scheme feeding various sub-distribution points. From here the feeds to the various houses under construction can also be laid permanently for the greater part of the way, though the last sections of these will always have to be only temporary installations.

It is of importance, however, that at the terminations of the permanent sections of the distribution layout, simple, though at the same time thoroughly reliable, types of portable switchgear should be used, and from this point the temporary work, whether underground or overhead, should be of sound, strong construction, to avoid any possibility of frequent breakdowns or of danger to the building staff working on site.

In this connection, trailing cables, provided they are of the armoured variety, are the best means of providing temporary power at a number of positions with safety. Overhead mains are open to constant damage. It is of paramount importance to keep all appliances, and all metal parts that could possibly become alive well earthed, and in this connection it is often advisable to run duplicate earth wires throughout.

ARC WELDING AWARDS

SUCCESSFUL PAPERS BY BRITISH ENGINEERS

Awards went to 24 papers submitted by industrial engineers of England in the international $200,000 Design-for-Progress Award Programme sponsored by The James F. Lincoln Arc Welding Foundation of Cleveland, Ohio. Decisions of the foundation were announced on November 1, the 467 awards ranging from $100 to $13,200 for the best papers on arc welded design, research and application. Papers were submitted from 17 different major industrial countries.

The successful British authors were:—P. P. Hill, Bristol (250 dollars); B. De Looze, Burnley (150 dollars); D. Dixon, High Wycombe (100 dollars); C. H. J. Cooley, Plumstead (150 dollars); J. Coltman, Radcliffe-on-Trent (100 dollars); A. V. Fripp, Bristol (150 dollars); C. B. M. Dale, Leicestershire (1,500 dollars); H. B. Fergusson, London, E. F. Burford, London, R. V. Rowles, Gloucester, and N. A. Graveson, Gloucester (700 dollars); A. T. Heath and J. Stokes, Ipswich (500 dollars).

L. O. Mellor, Chesterfield (100 dollars); W. M. Dunn, Coventry (100 dollars); G. Dunn, Birmingham (100 dollars); A. Hamilton, Lancashire (100 dollars); H. P. Print, Oxford (100 dollars); E. J. Allman, Chichester (100 dollars); G. Keeble, Oldham (1,700 dollars); E. F. Gill, Surbiton (100 dollars); F. J. McCann, Bolton (150 dollars); W. A. Mitchell and G. Wilson, London, S.W.1 (100 dollars); H. Brickwood, Huntingdon (100 dollars).

G. G. Musted, Birmingham (100 dollars); C. H. Stocks and J. W. G. Thurston, London (100 dollars); R. N. Parkins, Willington (250 dollars); H. Gottfeldt (100 dollars); A. M. Clark, J. Loughray and W. Denovan Garrick, Glasgow (2,000 dollars); J. Anderson, Glasgow (250 dollars); A. Scott, Glasgow, E.2, and Ernest McMinn, Edgware (250 dollars); E. W. Gallimore, Edinburgh (500 dollars); A. Reid, J. Duncan and W. Caddell, Ayrshire (250 dollars); and **J. H. White, Glasgow (100 dollars).**

A DECORATIVE AND WATERPROOFING
TREATMENT FOR CONCRETE
CEMENT RENDERING
BRICKWORK, ASBESTOS, ETC.
"STIC B"
STONE COVERING

OTHER PRODUCTS
SEMI-STONE COVERING
PLASTIC PAINT
FLAT PAINT
DISTIC
(Washable Distemper)
TRANSPARENT
DAMPROOFING LIQUID

"STIC B" PAINT SALES LTD.
69, VICTORIA STREET, S.W.1
WHITEHALL 9958

IN PARLIAMENT

Reconditioning.

Lord O'Hagan asked the Government what steps had been taken to carry out the intention announced by the Minister of Health on July 31, 1947, to include in the housing programme the provision of financial assistance for the improvement of existing houses in town and country, whether carried out by a local authority or by other persons.

Lord Henderson said that while it remained the intention of His Majesty's Government to include in their housing programme provision of the nature described by Lord O'Hagan, it also remained their opinion that for the present the most urgent need was to concentrate on the building of new houses as much labour and materials as could be made available. No steps had, therefore, yet been taken to introduce legislation providing financial assistance for the improvement of existing houses, but the matter would be considered further as soon as circumstances permitted.

Rural Housing

The Earl of Onslow asked what instructions had been given to local authorities to ensure that (a) Houses built for agricultural workers were built on sites most suitable to local needs; (b) they were, in fact, occupied by *bona-fide* agricultural workers.

Lord Henderson said that local authorities concerned with the provision of houses for the agricultural population had been asked to maintain the closest consultation with County Agricultural Executive Committees. By this means they should be able to secure the best possible advice, both on the siting of new houses in relation to agricultural needs and on the occupational qualifications of prospective tenants.

Church Cottages.

Mr. Turton asked how many cottages the Ecclesiastical Commissioners proposed to build for agricultural workers in the Midlands and the North of England; and when it was proposed the work would start.

Mr. T. W. Burden, Second Church Estates Commissioner said that the Ecclesiastical Commissioners had proposed the building of 600 agricultural cottages on their estates in the north, midland and western areas, and the Minister of Health was understood to have approved the scheme in principle. A beginning was now being worked out in practical detail, but it was not yet possible to forecast any date or the rate of progress with the scheme.

Greenhouse Repairs.

Mr. Butcher asked the Minister of Works why glass was not made available for repairs to greenhouses damaged by enemy action, although portable greenhouses complete with glass might be purchased without a permit.

Mr. Key said that no permit was needed to buy horticultural glass, and such supplies as were available might be used for repair work or for portable greenhouses.

Improvements to Commons Chamber.

Mr. Granville Sharp asked the Minister of Works whether he intended taking any further action to improve the ventilation of the present House of Commons Chamber.

Mr. Key said that repairs to the filter screens had just been completed, but no further work was proposed at present.

Building Licences.

Mr. Lever asked the Minister of Works if he would state the amount of building licences granted in respect of 96, Piccadilly, W.1; to whom the licence was granted; and for what purpose.

Mr. Key said that during 1945 and 1946 licences totalling some £7,500 were granted to Messrs. Higgins and Partners and the Turriff Construction Corporation, Ltd. for war damage repairs, reinstatement after derequisitioning and alterations to provide office accommodation on the upper floors. Three licences had been granted this year to Messrs. Kenaldo, Ltd., in respect of 96, Piccadilly, W.1. The first licence for £4,500 was granted on the recommendation of the Ministry of Food for essential work necessary to make the ground floor and basement fit for use as a restaurant. The second licence for £3,050 was granted for the ventilation system to meet the requirements of the London County Council, and for marble and stone work which was of a specialist nature. The third licence for £4,200 was granted on the recommendation of the Ministry of Fuel and Power for the installation of an oil-fired heating system.

Bartlett School of Architecture.

The recently published calendar for the 1947-48 session of University College, London University, gives full details of the courses of study available at the Bartlett School of Architecture.

CONTROL OF IRON AND STEEL

NOTES ON BUILDING MATERIALS AND COMPONENTS (SUPPLEMENT TO MINISTRY OF HEALTH CIRCULAR 76/46)

Local authorities (state the Ministry of Health in a circular, Steel No. 3, issued last week) will be aware that the present scheme for controlling the distribution of iron and steel is to be brought under review. In the meantime, however, it is considered desirable to clarify certain points in connection with the issue of "M" Form authorisations under the existing arrangements. Special attention is drawn to paragraph 9 below regarding the need for further economy in the use of steel for housing purposes.

1. "M" Forms should be issued by local authorities only in respect of their own housing work and work licensed by them.

In the case of local authority housing work, including work on services carried out as part of a housing contract, "M" Forms are issued against the Ministry of Health allocation, and should bear the symbol "M.H." and "No. 140." A counterfoil of each "M" Form should be sent to the Principal Housing Officer on the day of issue. ("M" Forms in respect of (i) water and sewerage services to housing sites carried out under separate contract, and (ii) work other than housing carried out by local authorities for which the Ministry of Health is the responsible central department, are issued by the Department direct. Applications should be referred to the Priority Officer, Ministry of Health, Whitehall, S.W.1.)

In the case of work, including housing, carried out under civil building licences granted by the local authority, "M" Forms should be issued with the Ministry of Works departmental symbol "O.W.C." Counterfoils of these "M" Forms should be sent to the Regional Licensing Officer (see Ministry of Works Leaflet "Notes for the Guidance of Licensing Officers"—C.L.A.5).

2. "M" Forms should *not* be issued by the local authority for the following purposes:—

(a) Manufactured goods of standard type listed in the attached schedule: steel or cast iron for the manufacture of these goods is issued in bulk, and no "M" Form is required by the purchaser.

(b) Contractors' plant: steel for this purpose is released by the Ministry of Works, and where necessary contractors should be referred to that Department, Branch A.S.72, Lambeth Bridge House, London, S.E.1.

(c) Steel for non-traditional houses other than those specified in Circular 17/47: applications should be referred to the Ministry of Health, Whitehall, London, S.W.1.

(d) Wrought iron: no "M" Form is required.

3. "M" Forms should be issued for the licensing period in which the steel or cast iron is to be delivered. If no order has been placed by the end of the period specified in the "M" Form, the "M" Form becomes invalid and the material is lost to the Department's allocation for the period. Where an order has been accepted for delivery in the period specified in the "M" Form, and for any reason the steel cannot be delivered in that period, the "M" Form remains valid for the succeeding period, but for no longer. Local authorities should do all they can to avoid the necessity for renewing "M" Forms by ensuring that they are issued in the first place for the appropriate period as indicated above.

4. Except as regards small quantities normally bought from stockholders, no authorisation should be issued in the last month of a quarter for delivery in that quarter.

5. "M" Form authorisations should not be issued for more than one period in advance without prior reference to the Department.

6. A special "M" Form is required for steel sheets, that is, sheets less than 3 mm. thick and more than 18 in. wide (see Supplement to Ministry of Health Circular 76/46—"Steel No. 1").

7. Requirements for spun cast-iron pipes and fittings (other than rain water, hot water and soil pipes) should always be specially designated on the "M" Form. If other castings are covered by the same "M" Form, the figures for spun cast-iron pipes should be shown separately.

8. It should be noted that the inclusion of certain steel and cast-iron goods in the W.B.A. priority scheme does not obviate the need for an "M" Form authorisation where the bulk allocation arrangements (see schedule) do not apply.

9. In view of the need at the present time to conserve the maximum supply of steel for industries essential to the national economy, it is necessary to restrict the consumption of steel to essential uses, and when examining proposals for housing work, local authorities should consider carefully whether the use of steel for any particular purpose is justified under present conditions. For the present, steel sheets should not be authorised, for example, for the following purposes: kitchen fittings and cupboards, staircases, surrounds for fireplaces, porches and canopies, and street name-plates.

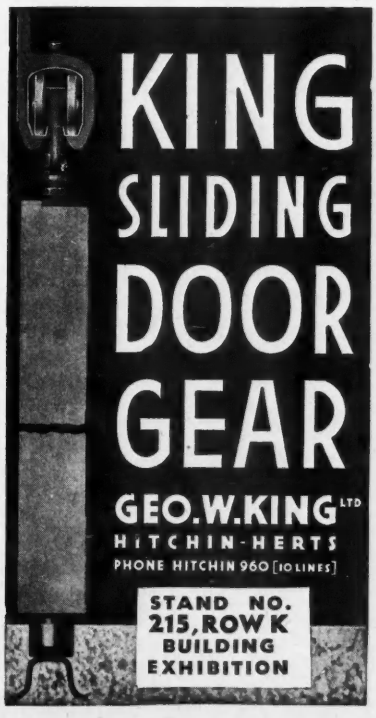
The amount of steel sheet and strip authorised by local authorities for houses of traditional construction should be kept to the minimum, and should not exceed ½ cwt. per house. The use of steel tubing for fencing and guard-rails should be avoided, both because of the weight of steel involved and because the tubing is required for more essential uses.

Proposals for alternative methods of construction in traditional houses (e.g., for roof or first-floor construction) which involve additional steel requiring an "M" Form authorisation, should not be proceeded with until the concurrence of the Department has been obtained. Consideration will be given to any such proposals in the light of the weight of steel required and the savings in other scarce materials.

SCHEDULE.

Manufactured Goods of Standard Type for which Authorisation by Local Authority is not Required.

Asbestos cement pipe fittings.
Barrel bolts.
Baths and bathroom units.
Bins, including storage bins, coal bins and dustbins.
Boilers, wash, electric, gas and solid fuel.
Builders' hardware and plumbers' brass-foundry.
Butts and hinges.
Butts, water, galvanised.
Cables and conductors, electric.
Casement fasteners (stays and fittings).
Cisterns, domestic.
Clothes poles, steel.
Coal bins.
Concrete products, precast.
Conduit fittings.
Cookers, gas, electric and solid fuel (lightly insulated).
Cut nails and tacks.
Cylinders, hot water.
Doors, metal, and sub-frames.
Dustbins.
Electric equipment and appliances:—
  Conduit fittings.
  Electric cables and conductors, excluding armoured cable for use by Electricity Supply Undertakings.
Fuses.
Lighting fittings (domestic and industrial).
Meters.
Street lighting equipment.
Transformers.
Wash boilers.
Water heaters.
Expanded metal.
Fencing, gates and railings.
Fireplaces, tiled.
Fires, electric and gas.
Flushing cisterns other than castings.
Garages and sheds, portable.
Gas appliances, including domestic cookers, fires, heaters, wash boilers, water heaters, geysers and meters.
Gates and railings.
Glazing bars.
Hat and coat hooks.
Heating stoves, domestic.
Hinges and butts.
Hot water cylinders, cisterns and tanks.
Immersion heaters.
Kitchen units, domestic.
Lavatory basins, metal.
Lifts, elevators and hoists.
Locks and latches.
Manhole covers and frames, other than castings.
Meters.
Overflow units.
Padlocks.
Pipes and fittings, rainwater, smoke and soil, *other than castings.*
Precast concrete products.
Pumps and pumping plant.
Rainwater pipes and fittings, other than castings.
Reinforced concrete posts and precast concrete products.
Sanitary ware, steel, including flushing cisterns.
Scaffolding and fittings, tubular.
Service pipes.
Shuttering, steel, for ferro-concrete.
Sinks, pressed steel.
Solid fuel heaters, grates and stoves.
Stopcocks.
Switchgear, fusegear and control gear.
Tanks and cylinders.
Taps.
Tiled fireplaces.
Time switches.
Transmission line accessories for electric cables.
Tube and pipe accessories, other than standards.
Tubes, steel, precision.
Wash boilers.
Wash tubs.
Water butts.
Water heaters, gas and electric.
Water waste prevention sets (flushing cisterns, etc).
Window frames, metal.
Wire products of the iron and steel industry, viz:—
  Woven wire mesh, woven field fencing, chain link fencing, barbed wire, wire rope, wire rope accessories and fittings, wire strand, wire and wire rod reinforcement, fabric mesh, wire nails and staples.



PORTSMOUTH AND DISTRICT EMPLOYERS

75TH ANNIVERSARY

THE celebration this year by Portsmouth builders of the 75th anniversary of the founding of their local association, now known as the Portsmouth and District Association of Building Trades Employers, which until recently was generally known as the Portsmouth Master Builders' Association, is of special interest. It was on July 26, 1872, that a meeting of builders was held at Mr. Timpson's Railway Hotel, at Landport. The reason for convening the meeting, as given in the minutes, was "the present agitation of men in the employ of Mr. Harding and others," and those present decided to form themselves into an Association "for their own protection." The labour trouble, which appears to have then been anticipated, apparently did not arise at once, for it was not until two years later that the storm which had been heralded actually broke. The Association, in the meantime, applied itself to such matters as the revision of building by-laws, the provision of quantities for the erection of Flying Bull-lane Schools and other trade matters.

They early decided to have a secretary not connected with the industry, a rule adopted ever since, and a Mr. John Street was appointed. He earned the gratitude of all members for the very full record he kept of the proceedings at that time, incorporating copies of the material correspondence in full.

Early attempts to mediate in settling industrial unrest were not encouraging, but after a time working rules were arranged, but the rules suggested by the Bricklayers Society in 1876, which concede to an employer "power to conduct his own business in any way he might think fit—not infringing the individual liberty of the workman," must have been a bitter pill for some of the employers of that time.

Conditions continued to be settled locally until 1921, when the need for removing the inconsistencies in wages and conditions which existed in different areas necessitated regional and national conciliation schemes. No matter which direction future developments may take, they will doubtless call for that careful consideration of those engaged in the industry for which the Portsmouth builders have been pioneers in the past.

TRADE NEWS

Builders' Telephone Number.

The new telephone number of Messrs. Walker (Tooting), Ltd., of Hackbridge Estate, Wallington, Surrey, is Wallington 6661, and not as printed in a recent issue.

Change of Address.

The Riley Constructional Systems department of Messrs. Cawood Wharton and Co., Ltd., have, from October 27, removed to 1a, Cavendish-road, Leeds 1 (telephone: Leeds 22901), where they will be pleased to receive inquiries and catalogues.

Schoolboys at Joinery Works.

With the co-operation of Lieut-Col. S. R. Sharp, the managing director, parties of schoolboys were recently conducted round the factory of Messrs. Sharp Bros. and Knight, the Burton-on-Trent Joinery Manufacturers. The visit gave them an insight into modern methods of timber-conditioning and high-speed joinery production, and it is felt that the interest aroused will probably assist recruitment to the industry.

NEWS ITEMS

1948 Fixed Week Holiday.

The Birmingham Local Joint Committee for the Building Industry has decided that the fixed week for the holiday to be taken in 1948, under the Holidays-with-Pay Scheme, shall be the normal working week commencing Monday, July 5, and terminating Saturday, July 10, 1948, both dates inclusive.

Electrical Contracting Industry.

The National Federated Electrical Association, Africa House, Kingsway, London, W.C.2, have published a booklet incorporating industrial agreements and national working rules for the electrical contracting industry, as agreed between the National Federated Electrical Association and the Electrical Trades Union.

Reports on German and Japanese Industry.

Further reports on German and Japanese industry have recently been published. Copies are available for reference at the chief public libraries and chambers of commerce, universities, professional and scientific institutions and trade associations. Reports may be purchased from the Sales Offices of H.M. Stationery Office or ordered by post from the Cashier, H.M.S.O., P.O. Box 569, London, S.E.1.

Examination Papers on Timber Technology.

The Timber Development Association has recently published a Handbook of Examination Papers for students taking timber technology classes. In view of the new standardised examination scheme for students attending the T.D.A. classes, which leads to the award of a certificate at the end of the third year, it is believed that this handbook will be of guidance to both instructors and students and of interest to members of the trade. Included in the booklet is a list of text books which, it is felt, students can reasonably be expected to have studied by the end of the three-year course. Copies can be obtained at a cost of 1s. on application to The Education Secretary, Timber Development Association, 75, Cannon-street, London, E.C.4.

The Hall Mark AYGEE of Craftsmanship

IF IT'S GLASS OR GLAZING IT'S

AYGEE LTD.

ENGLAND'S LARGEST GLAZING CONTRACTORS

100, Westminster Bridge Road
LONDON, S.E.1. 'phone:
WATerloo 6314 (6 lines)

THE SCOTTISH BUILDER

BUILDING WAGES

MR. J. J. ROBERTSON, M.P., Parliamentary Under-Secretary of State for Scotland, had a meeting on Monday last with a deputation from the Scottish National Building Trades Federation (Employers) on the question of the payment by local authorities and building contractors in certain areas of Scotland, of a guaranteed 44-hour week in place of the 32 hours' guarantee included in the working rules agreed by both sides of the building industry.

The Federation representatives said that certain contractors who were abiding strictly by the working rules agreement were losing labour to contractors in neighbouring areas who were giving a guaranteed 44-hour week. The Federation feared that this departure from the working rules agreement would spread to other areas and that one of the results would be a substantial increase in the cost of building. The Federation asked that the Government should accordingly take any necessary action to ensure that the working rules were being strictly observed by all local authorities and building contractors.

Mr. Robertson in reply pointed out that this difficulty was one for the building industry itself to settle. He did not think the Government at this stage were called upon to take any official action. It was for the Federation to discipline its own members.

NEW BUILDINGS

Dolphinston.—Lanarkshire C.C. to erect houses, for which the architect is S. MacColl, Albert-st., Motherwell.

Dumfries.—Dean of Guild Court approved of plans for an ice-cream factory and bakery at College-rd. for Florida Cream Ices, Ltd., Buccleuch-st., Dumfries, at £24,000.

Glasgow.—Alterations and additions to be carried out at 102 to 106, Great Western-rd. by Alexanders Stores, Ltd., 7, Bath-st., Glasgow.—Alterations and additions proposed at Dudale-rd. by Fireglass, Ltd., 99, Nuneaton-st., Glasgow.—Alterations and additions proposed at Baltic-la., for which the architect is J. Wingate, 4, Westbourne-cres., Bearsden.

Glasgow.—L.M.S. garage proposed at Maryhill-rd., from plans by the Architectural Department, St. Enochs Station, Glasgow.—Alterations and additions proposed for Davidson Paper Sales, Ltd., for which the architect is M. Duncan, 243, Eglinton-st., Glasgow.—Alterations and additions proposed for Allied Industrial Services, Ltd., for which the architect is R. Brodie, 289, Kenmuir-st., Glasgow.

Lanarkshire.—At Robroyston Farm site, new cottage houses to be erected, for which the architect is Ronald Bradbury, 20, Trongate, Glasgow.

Lanarkshire.—Warehouse to be erected at Shieldhall by Scottish Wholesale Co-operative Society, Ltd., Paisley-rd., Glasgow.

FUTURE CONSTRUCTION

PUBLIC APPOINTMENTS

Full details of Public Appointments open will be found in the Advertisement pages of this and previous issues.

CONTRACTS OPEN

For some contracts still open but not included in this list see previous issues. Those with an asterisk are advertised in this number. The dates at the heads of paragraphs are those for the submission of tenders; a dagger (†) denotes closing date for applications; the name and address at the end refer to the person from whom particulars may be obtained.

BUILDING

NOVEMBER 21.

†**Crook and Willington U.D.C.**—46 houses at Low Down Meadows site, Crook. W. G. Omand, C., Council Offices, "Glenholme," Crook, Co. Durham. Dep. £2 2s.

†***East Sussex C.C.**—Alteration and conversion of "Beckworth," Lindfield, into hostel for students. E. A. Verger (F.), County A., County Hall, Lewes. Dep. £2 2s. Tenders by December 15.

NOVEMBER 24.

Acton T.C.—New buildings, extensions and alterations to existing buildings at Central Depot, Wales Farm-rd. B.E.

Bootle C.B.—Rebuilding and major repairs of ladies' plunge bath at Balliol-rd. B.E. and S.

Dewsbury C.B.—4 police houses at Halifax-rd. Boro' A. and Buildings S., Town Hall. Dep. £1.

Leeds T.C.—Conversion of 2, Kingston-ter. into flats. R. A. H. Livett, O.B.E. (A.), City A. Dep. £2 2s.

Manchester E.C.—Repair of war damage at Atherton-st. School, Quay-st. City A. Dep. £1 1s.

†**Swansea E.C.**—(a) Kitchen dining room at Townhill; (b) kitchen dining room at Glendros; dining room and scullery at St. Joseph's School. Boro' A., The Guildhall. Dep. £2.

†**Swansea T.C.**—Primary school at Cadle. Boro' A., The Guildhall. Dep. £5.

NOVEMBER 25.

†***Norfolk E.C.**—3 additional classrooms and cloakrooms at Hellesdon Modern Secondary School. F. G. Limmer (F.), Ed. Architect, Stracey-rd., Norwich. Dep. £2 2s.

NOVEMBER 26.

Monmouth R.D.C.—6 houses at Llanishen with roads and sewers and sewage disposal works. Thomas and Morgan and Partners, 25, Gelliwastad-rd., Pontypridd. Dep. £3 3s.

Pontardawe R.D.C.—(a) 30 Airey rural houses, and (b) roads and sewers at Cilmaengwyn, Godre'rgraig. E. D. Jones, Architect, Council Offices, Pontardawe. Dep. £3.

NOVEMBER 27.

Ealing T.C.—Alteration and conversion of "Oakhurst," St. Stephen's-rd., W.5, into 6 s.c. flats B.E. Dep. £3 3s.

Saint Thomas R.D.C.—8 houses at Budleigh. L. E. Ellis, Architect, Station-parade, Exmouth. Dep. £2 2s.

NOVEMBER 28.

†**Arbroath.**—Work in all various trades for erection of maternity hospital and nurses' home. Johnston and Baxter, Chartered Architects, 49, Meadowside, Dundee.

†***Croydon C.B.**—Kitchen and dining-room block at New Addington School, Overbury-cres., Addington. Chief Ed. Officer, Katharine-st., Croydon Dep £1. Tenders by December 16

†***Isle of Ely C.C.**—Dining hall and servery and alterations to existing dinner kitchen at March High School. R. D. Robson (A.), County A., County Hall, March. Dep. £2 2s.

***Stepney B.C.**—Reconstruction of 14 dwellings at Brightlingsea-pl., E.14. Contract No. 666. B. W. Stuttle (F.), B.E. and S., Duval-st., E.1. Dep. £5.

NOVEMBER 29.

†**Coupar Angus and District Sick Nursing Association.**—Nurses' house and clinic at George-st., Coupar Angus. Lowe and Barrie, Chartered Architects and Surveyors, 7, Brown-st., Blairgowrie.

NOVEMBER 30.

Ebbw Vale U.D.C.—Office accommodation at Drill Ground. S., Council Offices. Dep. £2 2s.

DECEMBER 1.

Beckenham T.C.—Repairs to houses at Elmers End estate (Contract No. 3). B.E. and S. Dep. £2.

Southend-on-Sea C.B.—Alterations and additions to lavatory accommodation at 49, Alexandra-st. B.E. Dep. £2.

Southend-on-Sea C.B.—Erection of main workshops at London-rd. Schools, Municipal College. Architect to Ed. Committee, 30, Alexandra-st. Dep. £2.

***Stepney B.C.**—Electricity sub-station near Cephas-st. B. Electrical E. and Manager, 27, Osborn-st., E.1. Dep. £2 2s.

DECEMBER 3.

Easingwold R.D.C.—15 pairs of Airey houses with outbuildings, paths, fences and drainage at Galtres estate. Needham and Thorn (F. and A.), 6, High Petergate, York. Dep., £2 2s.

Lindsey C.E.C.—Canteen at Sibsey Free School. A. R. Clark, County A., County Offices, Lincoln.

Oxon C.C.—Canteen kitchen and dining room at Wheatley Voluntary Primary School. G. R. Hutton, County A., 3, Becket-st., Oxford. Dep £2 2s.

DECEMBER 5.

Billericay U.D.C.—(a) 8 Airey houses at Pound-la., Laindon; (b) 14 Airey houses at Woolshots-rd., Wickford. H. B. Mayhew, F.I.A.S., S., Council Offices, High-st. Dep. £2 2s.

Coleraine.—24 houses at Garvagh, Co. Londonderry. W. and M. Given, Architects, The Diamond, Coleraine. Dep. £3 3s.

***Huntingdon E.C.**—Canteen kitchen and dining room and sanitary accommodation for County Primary School, Warboys. T. H. Longstaff, County S. and Architect, Walden House, Huntingdon.

DECEMBER 8.

***Hemel Hempstead T.C.**—Conversion of Chaulden House, Chaulden-la. into s.c. flats. L. de Soissons, A.R.A. (F.), Midland Bank-chbrs., Welwyn Garden City. *Dep. £2 2s.

DECEMBER 12.

Skibbereen U.D.C.—10 houses at Upper Bridge Street. P. Murray. Acting T.C., Town Hall. Dep. £1 1s.

DECEMBER 15.

Salford T.C.—Reconstruction of Courts at Town Hall. City E. Dep. £3 3s.

DECEMBER 16.

***Bath T.C.**—Foundations for preliminary site works of new Junior and Infants' School at Fosseway Odd Down. Tew and Oliver (F. and A.), 7, Northumberland-bldgs., Bath. Dep. £2 2s.

***Bath T.C.**—Erection of super-structure of new Infants' School at Moorlands estate. W. G. Nixey, F.R.I.C.S., 18, Charles-st., Bath. Dep. £2 2s.

DECEMBER 17.

Cornwall Combined Police Authority.—5 pairs of police houses at Trevethan-la., Falmouth. S. Pool, County A., County Hall, Truro. Dep. £3 3s.

ROADS, SEWERAGE AND WATER WORKS

NOVEMBER 21.

†***Witney R.D.C.**—Site works at Burford, Oxon. C. Dep. £2 2s.

NOVEMBER 24.

Blackwell R.D.C.—307 yds. of 9-in. sewer, etc., at Town-st. and Wharf-rd., Pinxton. E. and S., 100, Chesterfield-rd., South, Mansfield. Dep £2 2s.

Ongar R.D.C.—8,100 lin. yds. of 3-in. dia. and 850 lin. yds. of 4-in. dia. spun-iron water mains, etc., at three parishes. E. and S. Dep. £2 2s.

NOVEMBER 25.

Barmouth U.D.C.—Roads and sewers at recreation ground site. C., Council Offices. Dep. £2 2s.

†**Chatham T.C.**—Roads, sewers, etc., at Wayfield estate. R. L. Honey (F.), B.E. and S., Town Hall. Dep. £3 3s.

NOVEMBER 26.

King's Lynn T.C.—Reconstruction of Loke-rd. B.E., 27, Queen-st. Dep. £2 2s.

Northampton R.D.C.—Sinking new well at Hartwell. S., 1, Cheyne-walk.

Northampton R.D.C.—New road at Harpole site. R. J. Miller, S., Council Offices, 1, Cheyne Walk, Northampton. Dep. £3 3s.

Wareham and Purbeck R.D.C.—Laying of about 5,700 yds. of 6-in. and 9-in. glazed ware and cast-iron sewers, etc., at Langton Matravers. T. Ward Whitfield, F.S.I., M.I.Struct.E., Hilperton, Trowbridge, Wilts Dep. £2 2s.

NOVEMBER 27.

Ashbourne R.D.C.—Construction of reservoir and sinking of borehole. H. Litchfield, S., Compton Offices, Ashbourne. Dep. £1 1s.

NOVEMBER 28.

Kidderminster R.D.C.—Road, sewerage and water works at Cookley housing site. E. and S., Land Oak House, Kidderminster. Dep. £2 2s.

NOVEMBER 29.

Brackley T.C.—Laying of water main along trunk road, A.43, Northampton-Oxford. T.C.

North Devon Water Board.—Laying and jointing of spun-iron water mains at Down St. Mary and Cheriton Cross and Cheriton Bishop. Rofe and Raffety, 3, Victoria-st., Westminster, S.W.1. Dep. £2 2s.

Solihull U.D.C.—Roads and sewers at Redlands-rd. and Heath-gdns. E. and S., 90, Station-rd. Dep. £2 2s.

DECEMBER 1.

Macclesfield R.D.C.—Roads and sewers at Robin-la. J. H. Walters, E., 19, Moody-st., Congleton. Dep. £2 2s.

Orpington U.D.C.—New street works at Rookery-gdns., St. Mary Cray. E. and S. Dep. £3 3s

Taunton T.C.—Construction of 12-in. and 15-in. sewers at Lyngford. B.E. and S.

***Wayland R.D.C.**—Site works at Little Ellingham, Watton and Thompson. H. Marsh (L.), 14, King-st., King's Lynn. Dep. £2 2s.

DECEMBER 3.

Ware R.D.C.—Roads and water sewers at Gt. Amwell estate. S., 97, New-rd., Ware. Dep. £1 1s.

DECEMBER 4.

Nantwich R.D.C.—Roads, sewers and footpaths at Higher Banbury. E. and S. Dep. £2 2s.

DECEMBER 6.

Honiton R.D.C.—Provision, laying and jointing of 8,700 yds. of 4-in. dia. and 3,100 yds. of 3-in. dia. spun-iron water mains, etc., at Wilmington, Cotleigh and Offwell. Rofe and Raffety, Chartered Civil Engineers, 3, Victoria-st., Westminster, S.W.1. Dep. £2 2s. (cheque only).

DECEMBER 8.

Aireborough U.D.C.—Making-up Hawthorn-dr., Yeadon. E. and S., Micklefield House, Rawdon. Dep. £2 2s.

Cuckfield R.D.C.—Site preparation at Cuckfield-rd., Hurstpierpoint. A. Hutchings, M.I.M.Mun.E. and S., Boltro-rd., Haywards Heath. Dep £2 2s.

Salford T.C.—1,400 lin. yds. of 18-in. to 36-in. dia. concrete pipe sewer, etc., at Duchy-rd., Pendleton. City E.

DECEMBER 15.

Hexham R.D.C.—Reinforced concrete reservoir near King's Law. C., Priestpopple House, Dep. £5.

Hexham R.D.C.—Supply, laying and jointing of approx. 4 miles of 3-in., 4-in., 6-in. and 7-in. pipes at Hexhamshire High and Middle Quarters. C., Priestpopple House, Hexham. Dep. £5

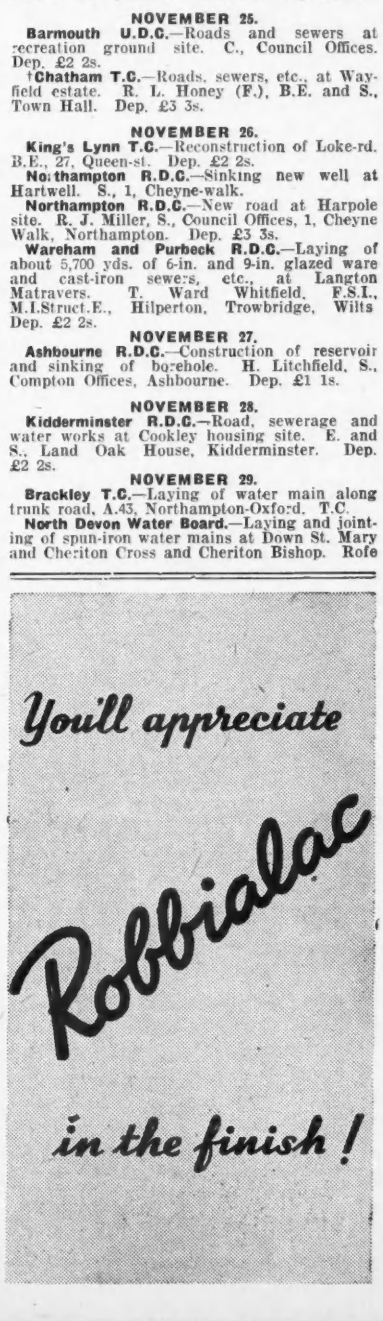
Wigton R.D.C.—9,360 lin. yds. of 9-in. and 6-in. spun-iron pipes, etc., from Fletchertown to Aspatria. W. K. Rodwell, 44, Park Cross-st., Leeds 1. Dep. £3 3s.

DECEMBER 17.

Wetherby R.D.C.—Sewerage and sewage disposal works at three villages. W. K. Rodwell, A.M.I.C.E., E., 44, Park Cross-st., Leeds, 1. Dep. £3 3s.

NO DATE.

Ringwood R.D.C.—Concrete roadworks and tarmac footpaths. F. Andrews (L.), 45, High-st., Ringwood.



GENERAL BUILDING WORK (LONDON)

Barking.—FACTORY EXTENSIONS.—At Highbridge-rd., proposed by Adhesive and Allied Products, Ltd. Plans by F. R. Neville, 20, Cotswold-gdns., Ilford.

Camberwell.—REBUILDING.—At 1-11, Rainbow-st. and 12-17, Bonsor-st. Plans by John Grey and Partners, 56, Oakley-st., Chelsea. Quantity surveyors, E. C. Harris and Partners, 3, Bedford-sq., W.C.1.

Chiswick.—EXTENSIONS.—To factory, Power-rd., W.4, proposed by Kozequilt, Ltd. Architect is R. Jelinek-Karl, A.I.A.A., 22, Chancery-la., W.C.2.

Croydon.—REBUILDING.—Of 12-16, Whitehall-rd. Architects are Hooker and Rogers, 29-31, George-st., Croydon.

Edmonton.—PLANS APPROVED.—Plans passed by Corporation for covered way between fitting shop and workshop, Century Glass Works, Angel Factory Colony; mess room and changing rooms at Shot Factory, Eleys Estate, I.C.I., Ltd.; rebuilding of boiler house, Bandacoll Works, Chichester-rd., H. Seymour Couchman; boiler house, Bridport-rd., for Shrager Bros.

Forest Hill.—REBUILDING.—Of war-damaged houses, 1-8, The Park, S.E.23, proposed. Plans by Dunsmore Bros., 23, Brockley-rise, S.E. Quantities by A. W. West, 8, Arthur-st., E.C.4.

Great Portland-st.—REBUILDING OF SYNAGOGUE.—Central Synagogue to be rebuilt for Council of United Synagogues. Plans by Lewis Soloman and Son, 21, Bloomsbury-way, W.C.1.

Kennington.—SCHOOL REBUILDING.—L.C.C. have appointed Messrs. Hugh Minty and Partners, of 14, Bedford-row, London, W.C.1, as architects for reinstatement of war damage to the Henry Fawcett School, Kennington.

Knightsbridge.—FLATS.—Westminster C.C. have informed the Ministry of Health that they are prepared to consider the issue of a civil building licence for the partial rebuilding and conversion of the Alexandra Hotel, Knights-

bridge, to provide 50 flats at an approximate cost of £1,700 per flat.

Lambeth.—EXTENSIONS.—Union Jack Club, Waterloo-rd., to be extended. Architect is R. Mountford Pigott (F.), 14, Cromwell-pl., S. Kensington.

Mitcham.—SCHOOL KITCHEN, ETC.—Surrey C.C. approved kitchen and dining-rooms, Western-rd. Co. Sec. Sch.

Peckham.—REBUILDING.—Of houses, 1-13, Adys-rd. Architects are John Grey and Partners, 56, Oakley-st., Chelsea. Quantity surveyors are E. C. Harris and Partners, 3, Bedford-sq., W.C.1.

Raynes Park.—SCHOOL KITCHEN, ETC.—Surrey E.C. propose kitchen and dining-room at Sacred Heart R.C. Prim. Sch.

Rotherhithe. — REINSTATEMENT. — After war damage proposed by Talbot Bros., Ltd., Rotherhithe-st. Plans by Sydney P. Barker (L.), 134, Upper Thames-st., E.C.4.

St. Marylebone.—REBUILDING PREMISES.—B.C. has approved application by Watney, Combe, Reid and Co., Ltd., for rebuilding "Allsop House," Gloucester-pl.

St. Marylebone.—OFFICES.—John Laing and Son, Ltd., Mill Hill, propose office buildings, Marylebone-rd

South Croydon.—OFFICES.—George Sands and Co. propose new offices, Napier-rd. Plans by David Smith, Warren-rd., Purley.

Wembley. — SHOPS. — London Co-operative Society, Ltd., propose shops, Church-la. and Mallard-way.

Wembley.—KITCHEN AND DINING ROOMS.—M. of E. approved kitchen and dining room to serve Kingsbury Co Sch. and Roe Green Prim. Sch.

Wembley.—FLATS.—Preliminary plans by H. V. Ashley and Winton Newman, 3, Verulam-bldgs., Gray's Inn, W.C.1, for block of flats, Woodcock-hill.

West Ham.—REBUILDING.—Twelve flats, 2-24, Ripley-rd., proposed. Plans by George A. McDowall and Francis, 377, Barking-rd., E.13.

Westminster. — COMMUNITY CENTRE. — The General Purposes Committee of the City Council has instructed Mr. James D. Wood, F.R.I.B.A., 1, Old Burlington-st., London, W.1, to prepare estimates and sketch plans for the restoration of premises in Marsham-st. and Tufton-st. for a proposed community centre.

Westminster.—HOUSING.—The C.C. has now obtained tenders for four nine-storey blocks of flats on Section 1 of the Pimlico Housing Scheme, but in view of directions issued by the Ministry of Health are not at the present time in a position to recommend acceptance of a tender.

Westminster. — LICENSED PREMISES. — Housing Committee has agreed with L.C.C., the two brewers concerned and the London Brewers' Council, arrangements for the replacement of the six existing licensed premises on the site of the Pimlico Housing Scheme, by four licensed premises, as follows: (i) Grosvenor-rd., on site of Belgrave Dock (replacing the "Balmoral Castle." Antrobus-st.; (ii) corner of Lupus-st. and Westmoreland-ter. (replacing "The Gun," 125, Lupus-st.); (iii) Lupus-st., on site about 200 yards west of existing site of "The White Horse"; (iv) Grosvenor-rd., on site about 150 yards west of the existing site of "The King William IV."

(PROVINCIAL)

Bangor (N. Wales).—T.C. propose houses at Deiniol-rd. and community centre at Maes Tryfan.

Barnet.—U.D.C. to consider plans prepared by S. for the erection of housing accommodation for aged persons at Hadley Manor estate.

Batley.—T.C. approved canteen and welfare department at Foxson's Mill, Staincliff, for Lancashire Cotton Corporation, Ltd., Blackfriars House, Manchester 3.

Bedlington.—Factory for disabled persons to be erected to plans by C. S. Errington, 46, Grainger-st., Newcastle.

Bexleyheath.—Kent E.C. to acquire sites at Hurst-rd. and Meadowview-rd. for Primary schools.

Blackburn.—British Northop Loom Co., Ltd., propose extensions to works at Daisyfield.

Blackwell.—R.D.C. propose development of site off Market-st., South Normanton, for housing estate.

Blyth.—North-Eastern Trading Estates, Ltd., Low Fell, Gateshead, planning erection of clothing factories, bedding factory, mineral water factory and a factory for electrical precision instruments at North Farm, Blyth.

Bolton.—T.C. approved extensions to physiotherapy and radiology departments, Royal Infirmary, off Chorley-rd., for Board of Management.

Bournemouth. — T.C. approved:—Alterations and additions at Hercules Mills, Green-rd., for Hercules Mills, Ltd.; 36 houses at East Howe-la. for C. Sears; restaurant and bakery at 517, Christchurch-rd. for E. G. Robinson; 6 shops, 11 office suites and 17 flats, 7 shops, 2 showrooms, 20 offices, 19 flats and garages at Terrace-rd., Orchard-st. and New-rd., off Commercial-rd., for H. R. Munro.

Burnley.—E.C. propose extensions at Abel-st. Secondary school for canteen.

Cardiff.—Community Housing, Ltd., London, to carry out housing scheme at Mill Farm estate, Llanishen. Layout plans by T. Elvet Llewellyn, 59, Queen-st., Cardiff.

Chelmsford.—R.D.C. approved plan, subject to certain conditions, for erection of corset factory at Burnthouse-la., Mountnessing, for H. P. Callaway, Ltd., 26, Florida-st., E.C.2.

Chesterfield.—Rev. R. S. Boden and Parochial Council of St. Augustine's propose extensions to church at £7,000.

Chester-le-Street.—H. Young (Motors), Ltd., to erect motor and agricultural repair works at £19,000.

Coventry.—E.C propose dining-room and kitchen at Technical College.—Board of Governors of King Henry VIII school propose assembly, dining-room and gymnasium.

Dagenham.—Education Authority proposes Primary school at Becontree Heath. Plans prepared by A. R. Dannatt & Son, 43, Duke-st., Chelmsford, Essex.

Dagenham (Essex).—Samuel Williams & Co., Ltd., 8, Lloyds-ave., E.C.3, propose large extension at Dagenham industrial estate.

Doncaster.—Miners' Welfare Commission, Ashley House, Ashtead, Surrey, propose pithead baths at Bullcroft Main Colliery, Carcroft. Plans by C. G. Kemp (F.), 5, Old Queen-st., Westminster, S.W.1.

Droylesden.—Lancs E.C. propose Girls' Secondary school at Manor-rd. at £178,620.

Dunmow (Essex).—R.D.C. propose 64 houses and flats at Guelph's-la., Thaxted. Plans by Gerald Lacoste (F.), 39, Gordon-sq., Bloomsbury, W.C.1.

Durham.—Cordingley & McIntyre, architects, The College, Durham City, submitted plans for cinema at Neville's Cross. Council to suggest alternative sites.

Eastbourne.—Chatfield Estate propose to erect houses for sale to B.C. Plans by H. Hubbard Ford (A.), 24, Cornfield-rd., Eastbourne.

Erith.—Kent E.C. is to proceed with provision of central kitchen at St. Augustine's County school, and to acquire site for new Primary school at Lessness Heath.

Guildford.—J. Sears & Co. (True-form Boot Co.), Ltd., acquired site at High-st. for extensions.

Hartlepool.—R. Bailey, Marton-in-Cleveland, proposes temporary cinema at West View.

Haslingden.—Lancs E.C. propose grammar school at Broadway site. G. Noel Hill (F.), County A., County Offices, Fishergate-hill, Preston.

BESPOKE FRAMES *for* SPECIAL SEATS

ARCHITECTS & BUILDERS can obtain high-class Chairs and Special Seating by specifying "FIRM-BACK CHAIRS" and "CINNAMON FRAMES" in their instructions to Furnishing Contractors

J. CINNAMON LTD

Chair Frame Makers to the Upholstering Trade

FIRMBACK WORKS, ANDREWS ROAD, CAMBRIDGE HEATH LONDON, E.8

Heywood.—T.C. approved:—Additions to works, Miller-st., for Tedson, Thornley & Co., Robert-st., Rochdale; additions at Moss Mill for Wild & Co., Ltd.; additions to works at Holt-st. for Heywood Weatherwear Co.

High Ercall.—Salop E.C. propose Secondary school.

Hindley.—U.D.C. approved:—Extensions at Park Mill, Park-rd., for N. A. Hindley; extensions to works at Platt-la. for Keystone Paint & Varnish Co., Ltd.

Hove.—Plans approved for additional storey to factory at Lorna-rd. and Holland-rd. Architects, Overton & Massey, 38-39, West-st., Brighton.

Hull.—H. Needler, builder, Dunstan-rd., Hull, proposes housing scheme off Ings-rd. Plans by G. Williams (F.), 6, Wright-st., Hull.

Hyde.—Ches. E.C. propose Primary school at Victoria-st., Newton.

Leeds.—City Council approved plans by W. Tocher, architect, 8, Blenheim-terr., Leeds, for factory at Burley-rd. and Somerby-st. for Campbell & Stewart & MacDonald, Ltd.

Lowestoft.—P. Watson & Sons, Ltd., propose to rebuild garage, etc., at High-st. Plans by Taylor & Green, 10, North-parade, Lowestoft.

Maidstone.—Marks & Spencer, Ltd., 82, Baker-st., W.1, acquired site at Church-st. for extensions to store.

Manchester.—T.C. approved boiler house and extensions to dairy, Hall-st., Moston, for Greenwood & Ormerod, Ltd.; printing works at 95, Shakespeare-st., Chorlton-upon-Medlock, for Alfred E. Coe; factory at 1146, Ashton Old-rd., Higher Openshaw, for Taient (Tailored Out) Shirt Co., 12, Sunnyside-la., Droylesden; factory at 35, Rosamond-st., West, Hulme, for G. Henshaw, 7, Acacia-ave., Blackpool; 86 houses at Parkleigh-ave., Kenwick-dr. and Walmersley-rd., New Moston, for J. Saxon & Son, builders, 508 Victoria-ave., Blackley (Wheeler, Wood & Hobson, architects, 26, King-st.); reinstatement of factory, 18, Kirk-st., Ancoats, for J. Pollock; alterations, paint and varnish works at Dolphin-st., Ardwick, for A. MacNair & Co., Ltd. (Taylor & Young (FF.), architects, 195, Oxford-rd., Chorlton-upon-Medlock); extensions to telephone exchange, Thornton-st., Collyhurst, for M.O.W.; school at Wilton Polygon for Cheetham E.C.

Mansfield.—T.C. approved:—Workshop and store at Baums-la. for H. Baggaley, Ltd.; dining-room at Pleasley Hill school and additional classrooms at Carter-la. schools for Notts E.C.

Newcastle-on-Tyne.—Sites approved for six nursery units and one Primary school for E.C. F. W. Harvey, Northumberland-rd., Newcastle-on-Tyne, is school architect.

Newcastle (Staffs).—Staffs E.C. propose extensions and dining-room and kitchen at Knutton County Secondary school.

Newport (Mon.).—Governors of Royal Gwent Hospital propose alterations and additions. Plans by C. F. Bates (F.), 78, Bridge-st., Newport, Mon.

Northallerton.—War Memorial Committee propose combined swimming bath and memorial hall at £25,000.

Oldham.—T.C. approved day nursery at Brook Mills for Oldham Twist Co., Ltd.

Otley.—T.C. approved:—Offices at Riversdale-rd. for West Riding C.C.; offices at The Tannery, Station-rd., for Wm. Lawson & Sons.

Oxted.—Surrey E.C. propose dining-room and kitchen for Oxted County Secondary school at £7,500.

Portsmouth.—Plans prepared by W. H. Saunders & Son, 53, Commercial-rd., Portsmouth, for block of flats at Canal-walk, Landport, Portsmouth.

Reading.—George Fowler, Lee & Co., Ltd., 72, Queen-st., Reading, propose warehouse at 70-78, Queen's-rd. Plans by Charles Smith & Son, 164, Friar-st., Reading.

Redditch.—Birmingham and Home Counties Building Trust, Ltd., propose houses, etc. Plans by Loveday, Smith & Perrins, 10, Unicorn-hill, Birmingham.

St. Albans.—Herts E.C. to acquire site at Catherine-st. and Dalton-st. for County college.

Salford.—T.C. approved:—Factory at Bury New-rd., Broughton, for British Dominion Boot Co., Ltd.; electrical works at 192, Broughton-la., Lower Broughton, for S. Langetter; canteen to Fidamac Mills, Bridgewater-st., for H. & L. Fidler, Ltd.

Scunthorpe.—Lindsey E.C. propose Primary school, at £144,000, on Lincoln Gardens estate, and infants' school at £46,500.

Sheringham.—Education Authority to erect Secondary Modern school. Plans by C. H. Thurston (L.), 25, Thorpe-rd., Norwich.

South Shields.—Canteen to be built at factory of Shaffer & Co., South Shields. Plans by P. L. Browne, Son & Harding, Pearl-bldgs., Newcastle.

Sowerby.—West Riding E.C. propose infants' school at New-rd. school.

Stalybridge.—T.C. propose omnibus station off Angel Inn site.

Stockport.—E.C. propose Secondary school at Vale-rd.

Stoke Poges (Herts).—Plans prepared by W. David Hartley (F.), "Sunnyside," Wexham,

Slough, for community centre at Bells Hill for Stoke Poges and District Community Association.

Stretford.—T.C. approved site for Girls' High school at Edge House Farm for Lancs E.C.

Surrey.—Plans being prepared for submission to M.H. for erection of villa for low-grade male defectives at Botleys Park Colony for Surrey C.C. Mental Hospitals Committee at £32,000.

Surrey.—C.C. proposes to modernise kitchens at Farnham County Hospital and St. Luke's Hospital, Guildford, at £3,190 and £6,428, respectively.

Swansea.—Griffiths & Co., Carmarthen-rd., Fforestfach, Swansea, propose bakery. Plans by C. G. Tagholm (A.), 47, Mansell-st., Swansea.

Tolworth.—Surrey E.C. is to provide kitchen and dining-rooms at Tolworth County Secondary Boys' and Girls' school at £10,770.

Torquay.—W. J. H. Vanstone & Sons, Ltd., propose garage, offices, etc., at Isham-rd. Plans by C. G. F. Thurley (L.), Central-chbrs., Hyde-rd., Paignton, Devon.

Workington.—T.C. approved factory at New Bridge-rd. for West Cumberland Development Co., Ltd., 30, Roper-st., Whitehaven.

TENDERS

* Denotes *accepted.*
† Denotes *provisionally accepted.*
‡ Denotes *recommended for acceptance.*
§ Denotes *accepted subject to modification.*
¶ Denotes *accepted by H.M. Government departments.*

Barking.—Rebuilding 24 houses at Morley-rd. and Howard-rd., for various owners. A. Glenny & Sons, surveyors, 53, East-st., Barking: *E. J. Soule & Co., 196-200, Main-rd., Gidea Park, Essex (cost, £36,771).

Bartley.—Pair Forestry Commission Cottages. Architect: Frank Andrews (L.), 45, High-st., Ringwood, in collaboration with the Ministry of Works: *J. Payne, Emery Down, Lyndhurst, Hants.

Bishop Auckland.—41 houses at Etherley-Dene, for the Board of Trade Management Service. Architects: P. L. Browne, Son & Harding, Pearl-bldgs., Newcastle: *E. Pye & Son, Etherley-gdns., Bishop Auckland, Co. Durham.

Brighton.—Factory at Hollinbury Industrial Estate, for B.C. (for occupation by Rival Lamps, Ltd., Kingston By-pass-rd., Elmbridge, Surrey). R. Seifert (F.), architect, 28, Great Ormond-st., W.C.1: *McKellar & Westerman, Ltd., Church-rd., Hove, Sussex, £37,922.

Bury.—12 houses at Redvales No. 2 site, for T.C. J. Chadwick, B.E.: *J. E. France, 45, Assheton-rd., Moston, Manchester 10.

Chantonbury.—Houses for R.D.C. 22 at Worthing-rd., Storrington: *W. Dean & Sons, North-la., Storrington, £29,753; 16 houses at White Horse Yard, Storrington: *F. S. Vickery, Barnes Farm-la., Washington, Sussex, £16,299.

Doncaster.—Catholic Church at Parkway South, for R.C. authorities: *F. Flowitt, 11, Northfield-rd., Doncaster.

Edmonton.—Proposed Edmonton (Cuckoo-la.) Secondary Modern school, for Middx E.C. E. G. Stillman (F.), 20, Vauxhall Bridge-rd., S.W.1, County A.: *A. Roberts & Co., Ltd., 79, Eccleston-sq., Westminster, S.W.

Exmouth.—Six houses at Seymour-rd., for U.D.C.: *Exmouth Building Trade Employers' Association.

Finsbury.—Reinforced concrete frame and floors, for two 8-storey and four 4-storey blocks of 361 flats, Busaco-st., E.C.1, for B.C. Tecton, architects, 21, Sackville-st., W.1. Ove N. Arup, consulting engineer, Colquhoun House, Broadwick-st., W.1; Veale & Sanders, quantity surveyors, 19, Hanover-sq., W.1: *J. L. Kier & Co., Ltd., 7, Lygon-pl., S.W.1, £171,988.

Folkestone.—Restoration of Sandgate Sea Wall and Promenade, for T.C.: *Cementation Co., Ltd., 6, Cecil-sq., Margate, £74,410.

Glasgow.—Electricity generating station, for Corporation: *J. Mowlem & Co., Ltd., Ebury Bridge-rd., London, £1,180,240; and Sir William Arrol, Ltd., Glasgow, £472,838.

Harwich.—10 pairs of houses at Parkeston-rd., Dovercourt, for T.C.: *P. H. Hawkins, The Poplars, Main-rd., Dovercourt, £30,190.

Hull.—20 houses for aged people at Frost-av., for T.C. A. Rankine (A.), City A.: *Robinson & Sawdon, Ltd., 95, Alexandra-rd., Hull, £14,435.

Hungerford.—Houses for R.D.C. 10 at Bulpa-la.: *J. T. Gibbs & Co., Ltd., Salisbury-rd., Hungerford, £13,176; 12 at Bulpit-la.: *J. Wooldridge & Sons, Ltd., Canal Wharf, Hungerford, £15,704.

Jarrow.—Textile factory for H. Mullins (Earby), Ltd. Architects: Spence & Price, 26, St. Mary's-pl., Newcastle-on-Tyne: *George Henderson, East Boldon, Co. Durham.

Leeds.—For (1) Bulk excavation and site clearance; and (2) railway access and sidings at Skelton Grange Power Station, for Electricity Department. Sir Alexander Gibb & Partners, consulting engineers, Queen Anne's Lodge, Queen Anne's-gate, S.W.1: (1) *Harold Arnold & Sons, Ltd., Printing House-st., Doncaster, £12,545; (2) *Holloway Bros. (London), Ltd., Bridge Wharf, Millbank, S.W.1, £38,219.

Leicester.—Extensions to Nurses' Preliminary Training School, for Governors of Leicester Royal Infirmary. Pick, Everard, Keay & Gimson, F/F.R.I.B.A., architects: *George Calverley & Sons (Contractors), Ltd., Leicester.

L.C.C.—Contract exceeding £2,500 in value placed by L.C.C. during period ended November 5: Adaptation of classrooms at St. Olave's and St. Saviour's Grammar School for Boys (Rotherhithe), for school meals service: Soar & Co., Ltd., 79a, Jamaica-rd., S.E.16.

London.—Reinstatement of offices, Stafford House, Norfolk-st., Strand, W.C.2, for Law Land Co., Ltd. Sir John Brown, A. E. Henson & Partners, architects, 117, Sloane-st., S.W.1: *Law Land Building Dept., Ltd., Brettenham House, Lancaster-pl., W.C.2.

¶London (Air Ministry).—Contracts to value of £500 or over for week ended November 8:—
Building work: Haymills (Contractors), Ltd., London, W.5; J. E. Billings & Co., Ltd., Oxford. *General maintenance work*: Kerridge (Cambridge), Ltd., Cambridge; Bosworth & Wakeford, Ltd., Daventry; Sherriff & Co. (1943), Ltd., Leicester; J. F. Booth & Son, Banbury, Oxon. *Civil engineering work*: Chittenden & Simmons (Contracting), Ltd., London, S.W.1. *Painting work*: Geo. Jones & Son, Liverpool 6.

¶London (M.O.W.).—Contracts placed by M.O.W. for week ended November 6:—
London: Nos. 7, 8, 9, Carlton House-terr., London, S.W.1, reinstatement war damage, E. H. Burgess, Ltd., 34, Grosvenor-gdns., S.W.1. *Ayrshire*: St. Bridget's R.C. School, Kilbirnie, Ayr, temporary classrooms, James Preston & Son, Ltd., 26, Inverkip-st., Greenock, Renfrewshire. *Berks*: Harwell, A.E.R.E. Building 220, Berks, installation of heating, water, steam and gas services, Matthew Hall & Co., Ltd., 26/28, Dorset-sq., London, N.W.1. *Cumberland*: R.O.F., Sellafield, Cumberland, supply salt-glazed pipes, Assoc. Clay Industries, Ltd., Darwen, Lancs. *Durham*: Broom Cottages County School, Ferryhill, Durham, additional classrooms, G. W. Lazenby & Co., Ltd., Ferryhill, Co. Durham. *Herts*: A.T.X., Barnet, Herts, erection, Allen Fairhead & Sons, Ltd., Enfield, Middx. *Kent*: Central School, Cinque Ports-ave., Hythe, Kent, temporary buildings, School, Jemmet-rd., Ashford, Kent, temporary O. Marx & Son, Ltd., 153, Sandgate-rd., Folkestone; T.O.B., Kidbrooke, Kent, installation hot water and gas, Comyn Ching & Co. (London), Ltd., 15-21, Shelton-st., W.C.2; South Central School, Jemmet-rd., Ashford Kent, temporary buildings, Cementation Co., Ltd., Bostel House, West-st., Brighton; South County School for Boys, Bond-rd., Ashford, Kent, temporary building, Cementation Co., Ltd., Bostel House, West-st., Brighton; North Central School, Essella-rd., Ashford, Kent, temporary building, Cementation Co., Ltd., Bostel House, West-st., Brighton; Duke of York's School, Dover, Kent, installation road lighting, external distribution and sub-mains, B. French, Ltd., 19-29, Woburn-pl., W.C.1; King Ethelbert Senior School, Canterbury-rd., Birchington, Kent, temporary buildings, Operatives, Builders and Decorators, Ltd., Parkla., Birchington. *Lancs*: Lea, Preston, Lancs, brick and Airey-type houses, Jas. Crosby & Sons, Ltd., Carr Wood, Hale, Ches.; Holly-ave., Walkden, Lancs, M.N.I. offices, J. Gerrard & Sons, Ltd., Swinton, Lancs; Boxwood-st., Blackburn, Lancs, central kitchen, W. J. Woof Crankshaw & Sons, Ltd., Pump-st., Blackburn; Bury, C.B. Area, Contract II, Lancs, foundation and site works for aluminium houses, Drinkwater & Whittle, Norris-st., Farnworth; Turton, Bromley Cross, Lancs, M.N.I. office, type 5, J. H. Bullough (Cont.), Ltd., Gordon-st., Chorley.

Middx.: T.O.B., Site B, Stanmore, Middx., installation electric lighting, N. C. Bailey & Co., Ltd., 30, City-rd., London, E.C.1; Employment Exchange, Tenterden-gr., Hendon, Middx., alterations and additions, Comben & Wakeling, Ltd., 603/605, Kenton-rd., Kenton, Harrow, Middx.; T.O.B., Site B, Stanmore, Middx., laying brown pitch-mastic flooring, Highways Construction, Ltd., Iddlesleigh House, Caxton-st., London, S.W.1; Osterley Hostel for Paraplegics, supply, delivery and erection of boiler plant, Marshall, Sons & Co., Ltd., Britannia Works, Gainsborough. *Norfolk*: E. Dereham, High School for Girls, Norfolk, kitchen and dining-room, Walter Lawrence & Son, Ltd., Ventnor House, London-st., Swaffham, Norfolk. *Northumberland*: M.N.I., Lyric Cinema, Throckley, Northumberland, adaptations, John Jackson & Sons, 72, Corporation-st., Newcastle/Tyne. *Notts*: Victory House, Ruddington, Notts, conversion into flats, Bosworth & Co. (Cont.), Ltd., Haydon-rd., Nottingham. *Perthshire*: Breadalbane Academy, Aberfeldy, Perth, temporary classrooms, J. B. Stewart & Sons, 22, Queen-st., Coupar, Angus; Min. Labour, Fechney School, Spens-cres., Perth, hostel accommodation for building trade operatives, Tayside Bldg. Co., Castle-st., Tayport, Fife. *Surrey*: Hinchley Wood, T.O.B., Surrey, patent roofing-flooring, Smiths Fireproof Floors, Ltd., Imber Court, East Molesey, Surrey; Stoke C. of E. School, Markenfield-rd., Guildford, Surrey, temporary building, Otterway & Try, Ltd., The Causeway, Egham, Surrey. *Warwickshire*: Atherstone, R.D.C.1, Warwicks, roads and sewers, foundation and site works for aluminium houses, Orton & Dalby, Ltd., Hugglescote, nr. Leicester. *Wilts*: Gorse Hill, Drove-rd., Ferndale-rd., Even Council and Commonwealth Secondary Schools, Swindon, Wilts, dining-rooms and kitchens, W. E. Chivers, Ltd., Devizes, Wilts; Stratford-rd., Salisbury, Wilts, sites for aluminium houses, Wort & Way, Ltd., 37, Castle-st., Salisbury. *Worcs*: Block G, Telecommunication Research Estab., Malvern, Worcs, installation electric lighting, power and external distrib., General Electric Maint. Co., 20, High-st., Pinner, Middx. *Yorks*: Leeds, C.B. Area, Contract—9, temporary housing programme, Higgs & Hill, Ltd., 33, St. Paul's-st., Leeds 1.

¶London (War Dept.).—Works contracts placed by War Dept. for week ended November 1:—
Herefordshire: Miscellaneous work, H. Vaughan, Hereford. *Herts*: Miscellaneous work, Globe Contractors, Ltd., Watford. *Wilts*: Miscellaneous work, S. W. Foster, Ltd., Radstock, nr. Bath. *Somerset*: Alterations to M.T. sheds, W. J. Channing & Sons, Ltd., Burnham-on-Sea. *Sussex*: Miscellaneous work, A. E. Goodsell, Hastings.

Longbenton.—Supply of 42 aluminium houses, for U.D.C.: *Blackburn Aircraft Co., Dumbarton.

Manchester.—Works for T.C. L. C. Howitt (F.), City A. Repair of war damage at Claremont-rd. and Old Moat schools: *Cookson's Builders (Manchester), Ltd., Dantzic-st., and *Moston Brick & Building Co., Ltd., Kenyon-la., Moston; restoration of Chorlton Park Secondary school: *Peter Hodkinson, Ltd., Devonshire-st., Ardwick; reinforced concrete framing for 93 flats at St. George's Park, Hulme: *The Fram Reinforced Concrete Co., Ltd., 165, Plymouth-gr., Chorlton-upon-Medlock (all of Manchester).

Mansfield.—18 houses at Bancroft-la. site, for T.C. E. T. Crowe, B.S.: *C. Tack, Lichfield-la. (4); *E. C. Rippon, Ltd. (4); *J. A. Wilson, Hillsway-cres. (4); *J. E. Baggaley, Oak Tree-la. (4); *George Day (2) (all of Mansfield).

Methil, Fife.—Classrooms at St. Agatha's R.C. school: *Robert Terras, Jnr., building contractor, East Wemyss, Fife.

Neath (S. Wales).—Large works, etc., at Merlin-Gryddan, for Metal Box Co., Ltd., The Langham, Portland-pl., W.1 Samuel N. Cooke & Partners, architects, Sun-bldgs., Bennetts Hill, Birmingham: *Higgs & Hill, Ltd., Crown Works, South Lambeth-rd., S.W.8.

Newmarket.—22 "Airey" houses at three sites, for R.D.C. L. I. Cockenham, chartered architect, Council Offices Ashley: *T. C. Stewart 42, Museum-st., Ipswich; Dullingham: *H. Holland, Falmouth-st., Newmarket; Woodditton: *G. Youngs, St. Andrew's-st., Mildenhall.

Norwich.—Rebuilding Carrow Works, for Reckitt & Coleman, Ltd. J. G. Davies (L.), staff architect: *T. Gill & Son, 28, Rupert-st., Norwich.

Plymouth.—178 Easiform houses, for City Council: *John Laing & Son, Ltd., Mill Hill, N.W.7.

Portsmouth.—First instalment of Hillside Primary school, Cosham, for E.C. Adrien A. Sharp (L.), architect, Royal Beach Hotel, Southsea: *Kirk & Kirk, Ltd., 267, Upper Richmond-rd., Putney, S.W.15, £130,900.

FEDERATED EMPLOYERS'
ESTABLISHED 1904
INSURANCE LTD. ASSOCIATION

The Leading Office for
Contract Guarantee Bonds
ALSO
FIRE
WORKMEN'S COMPENSATION
PUBLIC LIABILITY
MOTOR
ETC. ETC.

Head Office:
8 KING STREET, MANCHESTER, 2
London Office:
23, Lawrence Lane, Cheapside, London, E.C.2

Salford.—Works for T.C. W. A. Walker, City E. Alterations and additions at Hope Hospital, Pendleton: *C. E. Bailey & Sons, Ltd., 59, Bowker-st., Broughton 7, £2,150; works canteen at Agecroft Generating Station: *J. Gerrard & Sons, Ltd., Pendlebury-rd., Swinton, Manchester, £4,750; suspended floors to turbine house, and boiler-house, piled foundations, at Agecroft Generating Station: *J. Gerrard & Sons, Ltd., Pendlebury-rd., Swinton, £76,059; rebuilding part of Seedley school: *E. B. Jones & Rawlinson, Ltd., Leaf-sq., Pendleton 6, £11,398 (rest of Salford).

Sandown.—Restoration of Sandown Pier, for Sandown-Shanklin U.D.C. T. Josey (B.S.): *Harbour and General Works, Ltd., 173, St. Stephen's House, Victoria Embankment, S.W.1, £10,677.

Scottish Special Housing Association.—Contracts placed from September 21 to October 11. Erection of Houses. Bilston, Midlothian, John Wight & Co., Dumbryden Works, Longstone-rd., Edinburgh. Site servicing; Townhead, Coatbridge (64 Weir "Quality" houses), Thos. Coats, Ltd., 216, Brandon-st., Motherwell. Water supply; New Dailly (12 Weir "Quality" houses) Jas. Alexander & Sons, Ltd., 9, Henrietta-st., Galston, Foundation and site work; Tullibody, Clackmannan, Alloa Corporation Gas Dept., Alloa, Gas services; Blackburn No. 1, West Lothian (134 Weir "Quality" houses), Geo. Taylor & Sons, 222/224, Grahams-rd., Falkirk, water supply; Woodmill, Dunfermline (150 Weir "Quality" houses), Sandilands & Thomson, 46, Inglis-st., Dunfermline, Water supply; Dalmellington, Ayrshire (12 houses—Transferred Miners), Messrs. Alex. Dunn, Ltd., 49, Main-st., Uddingston, Fireplaces (Supply and build in) for 12 bedrooms; Patna, Ayrshire (24 houses—Transferred Miners), Messrs. Alex. Dunn, Ltd., 49, Main-st., Uddingston, Fireplaces for 10 living-rooms and 24 bedrooms; Tullibody, Clackmannan (200 Weir "Quality" houses), Scottish Midlands Electricity Supply, Ltd., 10, Melville-st., Edinburgh, Electric service cable; Loanhead, Midlothian (100 Atholl houses), Loanhead Gas Co., Ltd., Loanhead, Gas services and connections; Danderhall, Midlothian (60 Experimental houses), Messrs. Alex. Dunn, Ltd., Bothwell-rd., Uddingston, Supply grates and grate building for eight houses; Kennoway, Fife (60 houses—Transferred Miners), Messrs. Geo. Rome & Co. (Glasgow), Ltd., 15, Blythswood-sq., Glasgow, Plaster and cement.

Shardlow.—22 houses at The Leys site, Little Eaton, for R.D.C.: *C. Hammersley, Derby, £27,492.

Sheffield.—Additional nursery accommodation at Carbrook Courts Infants' school, for City Council: *Boswell & Haigh, £2,352.

Skipton.—10 houses at School-la., Addingham. T. Yeadon, E. & S.: *Merritt & Fryer, Ltd., Sackville-st., Skipton, £13,442 (subject to M.H. approval).

Spenborough.—16 houses at Windy Bank estate, for U.D.C.: *A. & S. Grayston, Ltd., £15,060.

Surrey.—Erection of County Primary school at Hamsey Green, for C.C.: *Walker (Tooting), Ltd., 99, Beddington-la., Croydon, £67,912 (subject to M.E. approval).

Wallsend. — Tuberculosis dispensary, for Northumberland C.C.: *J. G. Spotswood, Ltd., 2, Heaton-rd., Newcastle-on-Tyne, £4,668 (revised tender).

Willesden.—Works for B.C.: 20 houses at Compton/Pember-rd. site, Kensal Green: *W. F. Marshall, Ltd., £28,593; 14 houses at College/Mortimer-rd. site: *W. F. Marshall, Ltd., £20,100; 96 flats at Canterbury-ter site, Kilburn: *Borough Engineer, £152,300.

Windermere.—34 houses at Oldfield estate, for U.D.C.: *Sefton Building Co., Ltd., £48,898 (subject to M.H. approval).

Wooburn Green (Bucks).—Large mill, for Wiggins, Teape & Co. (1919), Ltd., Mansell-st., E.1. Elliott, Cox & Partners, architects, Coastal-chbrs., Buckingham Palace-rd., S.W.1: *Taylor Woodrow Construction Co., Ltd., Southall, Middx.

FEDERATION OF MASTER BUILDERS
REGISTERED MEMBER

UNITE FOR STRENGTH.

THE

FEDERATION OF MASTER BUILDERS

will be at

OLYMPIA

at

Stand 329

(in the Gallery)

DURING THE

BUILDING EXHIBITION

November 19 — December 4

26, Ct. Ormond St., Holborn, W.C.1
Tel.: CHAncery 7583 (4 lines)
Telegrams: "EFEMBE, Holb., London."

Boyle's Patent "Air Pump" Ventilator

OVER TWO MILLION IN USE

ROBERT BOYLE & SON
VENTILATING ENGINEERS
27, JOHN ADAM STREET, ADELPHI, W.C.2
Tel.: Temple Bar 5859

WOOD BLOCK FLOORS
STEVENS & ADAMS LTD.
Victoria Works,
Point Pleasant, Wandsworth, S.W.18

GERWOOD BOARDS
FREE
OF LICENCE OR RESTRICTION
IDEAL SUBSTITUTE FOR PLYWOOD
Size 47 x 46 x ¼in. Write for Details.
N. GERVER
2-10 Mare Street, Hackney, E.8
Telephone: AMH. 1131/2 5805/7

THE ESSEX STEEL SCAFFOLDING CO.
SMART'S LANE
LOUGHTON, ESSEX
TEL.: LOUGHTON 295
SALES HIRE
ERECTION CRADLES

Maintenance Work?
'phone: WAT. 5474
W. & M. NEGUS, LTD.
STATION WORKS · KING JAMES ST., SE1.

GALBRAITH
BROTHERS LIMITED
trusts that all Builders will accept the invitation of the National Federation of Building Trades Employers and the London Master Builders' Association to visit the Club Room at the
BUILDING EXHIBITION
OLYMPIA - - NOV. 19—DEC. 4